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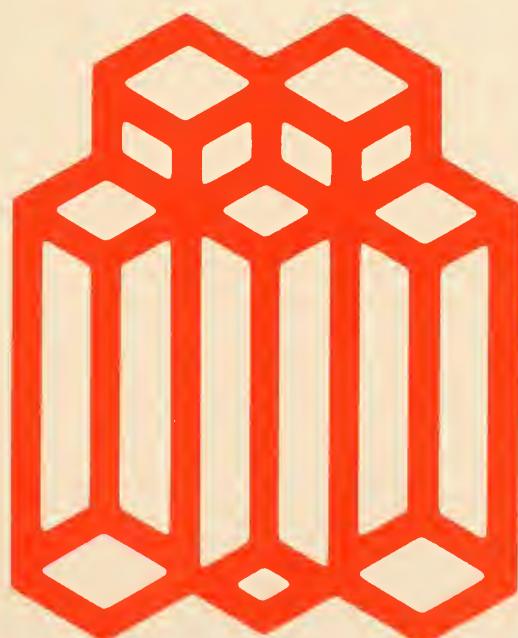
Census of Mineral Industries

MIC82-A-4

GEOGRAPHIC AREA SERIES

West North Central States

Iowa, Kansas, Minnesota, Missouri, Nebraska,
North Dakota, South Dakota



The publications
from the 1982 Economic and
Agriculture Censuses are dedicated
to the memory of Shirley Kallek,
Associate Director for Economic Fields.
During her career at the Bureau of the
Census (1955 to 1983), she continually
directed efforts to improve
the timeliness and accuracy of
economic statistics.

1982

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Issued April 1985



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Clarence J. Brown, Deputy Secretary
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West North Central States

CONTENTS

	Page
Introduction	IV
Users' Guide for Locating Statistics in This Report by Table Number	VIII

STATES

Iowa	IOWA-1
Kansas	KANS.-1
Minnesota	MINN.-1
Missouri	MO.-1
Nebraska	NEBR.-1
North Dakota	N. DAK.-1
South Dakota	S. DAK.-1

APPENDIXES

A. Explanation of Terms	A-1
B. Geographic Divisions and States	B-1

Publication Program	Inside back cover
---------------------------	-------------------

INTRODUCTION

	Page
ECONOMIC CENSUSES OVER TIME	IV
USES OF THE ECONOMIC CENSUSES	IV
AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES	V
CENSUS OF MINERAL INDUSTRIES	V
General	V
Scope of Census and Definition of Mineral Industries	V
Establishment Basis of Reporting	VI
Use of Administrative Records	VI
Auxiliaries	VI
Industry Classification of Establishments	VI
CENSUS DISCLOSURE RULES	VII
MICROFICHE	VII
SPECIAL TABULATIONS	VII
ABBREVIATIONS AND SYMBOLS	VII

ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications¹ (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and the agriculture census were conducted concurrently.

USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

CENSUS OF MINERAL INDUSTRIES

General

The 1982 Census of Mineral Industries is the 19th census of mining establishments in the United States. For 1982, it was conducted jointly with the censuses of manufactures, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses.

This report, from the 1982 Census of Mineral Industries, is one of a series of 9 geographic division reports, each of which provides statistics for individual states within a defined geographic area. Additional separate reports are issued for individual industries or groups of related industries and on special subjects, such as size of establishments, type of organization, assets, capital expenditures, type of operation, and fuels and electric energy consumed.

These separate reports subsequently will be issued as portions of the final census volume. The volume—Subject, Industry, and Area Statistics—will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments and receipts, capital expenditures, value added by mining, selected supplies consumed, and energy used. It will include, besides the industry statistics, geographic area statistics (number of establishments, employment, payrolls, value added, cost of supplies, value of shipments and receipts, and capital expenditures) for each State and county, by industry group and

statistics on selected subjects. The introduction to the final volume of the census of mineral industries will discuss, at greater length, many of the subjects described in this introduction. For example, the volume text will discuss the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

Scope of Census and Definition of Mineral Industries

The 1982 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the 1972 Standard Industrial Classification (SIC) Manual.¹ This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This system of classification is in general use among government agencies as well as organizations outside the government.

The SIC manual defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.) and other preparation needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1982 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

¹Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

Establishment Basis of Reporting

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A firm operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each State or off-shore area adjacent to a State in which it conducted such activities and to include employment, production, and capital expenditures data at the county level. Firms that performed contract services for oil and gas field operations or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services by State and county. These consolidated reports were then allocated to county establishments based on the data reported at the county level. The 1982 figures for establishments include the summation of operations within each county allocated from these State or nationwide reports and, therefore, are not comparable to prior censuses.

Establishments, as presented in this report, are those in operation "during the year." In the General Summary report (MIC82-S-1), a comparison will be made at the U.S. level of the number of establishments in operation "during the year" and at the "end of the year."

Use of Administrative Records

From a mailout universe of about 36,000 mining establishments, approximately 11,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment nonmail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2a and 5 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete, or where there are relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be

viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1982 census, as in the 1977, 1972, and 1967 censuses, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1963, 1958, and 1954 censuses if they reported more than \$500 in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

Auxiliaries

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses, storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (Form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

Industry Classification of Establishments

Each of the establishments covered by the census was classified in one of 42 mineral industries in accordance with the industry definitions in the SIC system. Under this system of classification, an industry is generally defined as a group of establishments producing the same main product or closely related group of products. The resulting group of establishments must be significant in terms of its number, value added by mining, value of shipments and receipts, and number of employees. Application of these criteria led to formulation of 42 mining industries, to each of which a four-digit code number was assigned. The classification system also provides broader groups of industries, with twenty three-digit groups and five two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics also are usually provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.

Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

CENSUS DISCLOSURE RULES

The Bureau of the Census is prohibited by Federal law from publishing any statistics that disclose information reported by individual companies. However, the number of companies classified in a specific industry is not considered a disclosure, so this item may be given even though other information is withheld.

The disclosure analysis for the State statistics in the tables of this report is based on the total value of shipments and receipts and capital expenditures. Whenever the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line has been suppressed. If capital expenditures alone is a disclosure, only total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

MICROFICHE

All data in the final reports and volume are available on microfiche. Microfiche reports are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

SPECIAL TABULATIONS

Public-use tapes are not available for 1982 Census of Mineral Industries data. However, special tabulations of data collected may be obtained on computer tape or in tabular form. The data

will be in summary form and subject to the same rules prohibiting disclosure of confidential information (such as name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications. Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, D.C. 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

—	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies.
(N A)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "l. tons."

Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendix]

Item	State historical	State by industry	State by industry group and type of operation	State summary	State by county and industry group	State by county and establishment size
Establishments:						
Total number	1	2a,2b	3	4a	5	6
Employment size				4a		6
Employment and payroll:						
Number of employees	1	2a	3	4a	5	
Payroll	1	2a		4a	5	
Production, development, and exploration—						
Workers	1	2a		4a	5	
Hours	1	2a,2b		4a	5	
Wages	1	2a,2b		4a	5	
Supplemental labor costs				4a		
Value added, cost of supplies, shipments, and inventories:						
Value added by mining	1	2a	3	4a	5	
Cost of supplies	1	2a,2b		4a	5	
Resales, cost and value				4a		
Purchased fuels consumed				4a		
Purchased electricity				4a		
Cost of contract work				4a		
Value of shipments and receipts	1	2a		4a	5	
Inventories				4b		
New and used capital expenditures, excluding land and rights:						
Total	1	2a		4a	5	
Buildings and structures				4a		
Machinery and equipment				4a		
Mineral exploration and development				4a		
Rental payments				4a		
Expensed mineral exploration, development, land, and rights				4a		

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	3
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	6

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	6
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	7
---	---

SUMMARY OF FINDINGS

The total value of shipments and receipts for the 216 establishments classified in mineral industries in Iowa was \$153 million in 1982, compared to \$126 million in 1977. Value added by mining amounted to \$104 million in 1982, and payroll in mining amounted to \$38 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons to prior years,

users should take into consideration the inflation that has occurred.

Mineral industries employment in Iowa was 2.1 thousand in 1982, a decrease of 28 percent from 1977. Nonmetallic minerals, except fuels led all other mineral industries in the State, accounting for 90 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9
1977 ¹	252	44	2.9	38.6	2.1	4.2	26.5	87.6	52.8	125.9	14.5
1972 ¹	223	36	2.5	23.4	2.0	4.8	17.5	53.3	26.0	70.8	8.5
1967 ¹	240	42	2.8	18.2	2.4	5.7	14.2	43.6	24.8	61.4	7.0
1963	295	32	2.7	13.5	2.3	5.3	10.5	33.2	17.2	44.9	5.5
1958	293	40	2.9	12.5	2.5	5.5	9.8	32.7	18.8	45.1	6.4

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees ² (1,000)	Value added by mining (million dollars)	
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
12	All mineral industries ----	E2	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9	2.9	87.6
121	Bituminous coal and lignite mining -----	-	10	3	.1	2.5	.1	.3	2.0	9.8	10.0	19.1	.7	.1	5.0
1211	Bituminous coal and lignite mining -----	-	10	3	.1	2.5	.1	.3	2.0	9.8	10.0	19.1	.7	.1	5.0
14	Nonmetallic minerals, except fuels -----	E1	181	23	1.9	34.4	1.5	2.9	24.5	85.1	52.4	121.7	15.9	2.7	80.3
142	Crushed and broken stone, including riprap -----	E1	105	21	1.4	27.8	1.1	2.2	19.5	69.7	44.3	99.7	14.4	1.8	62.1
1422	Crushed and broken limestone -----	E1	96	19	1.3	25.8	1.1	2.1	18.8	68.3	(D)	96.4	(D)	EE	(D)
1429	Crushed and broken stone, n.e.c. -----	E1	9	2	.1	2.0	(Z)	.1	.8	1.5	(D)	3.2	(D)	(NA)	(NA)
144	Sand and gravel -----	E1	69	2	.4	5.9	.3	.6	4.4	14.3	6.6	19.7	1.2	.8	15.8
1442	Construction sand and gravel -----	E2	67	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)	

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers			Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)			
Nonmetallic mineral mines included in manufactures -----						
Crushed and broken stone, including riprap -----	16	.3	2.5		3.5	(X)
Crushed and broken limestone -----	7	.1	1.5		1.8	(D)
Gypsum -----	6	(D)	(D)		(D)	913.3
	4	.1	.9		1.6	

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- ducing estab- lishments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistrib- uted ¹		
			Total	Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	ALL MINERAL INDUSTRIES													
	Establishments----- number--	216	214	18	6	3	9	146	7	131	8	1	49	
	Employees ----- 1,000--	2.1	(D)	.1	(Z)	(D)	(D)	9.7	.2	1.6	(Z)	(D)	.3	
	Value added in mining ----- mil. dol.--	103.5		9.1	.4			90.1	8.5	79.0	2.6		3.9	
10	METAL MINING													
	Establishments----- number--	2	2	-	-	-	-	-	-	-	-	-	2	
	Employees ----- 1,000--	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--												-	
108	Metal mining services													
	Establishments----- number--	1	1	-	-	-	-	-	-	-	-	-	1	
	Employees ----- 1,000--	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--	(D)	(D)	-	-	-	-	-	-	-	-	-	-	
109	Miscellaneous metal ores													
	Establishments----- number--	1	1	-	-	-	-	-	-	-	-	-	1	
	Employees ----- 1,000--	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	
	Value added in mining ----- mil. dol.--												-	
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments----- number--	10	10	7	6	1	-	3	-	3	-	-	-	
	Employees ----- 1,000--	.1	.1	(D)	(Z)	(D)	-	(D)	-	(D)	-	-	-	
	Value added in mining ----- mil. dol.--	9.8	9.8		.4							-	-	
121	Bituminous coal and lignite mining													
	Establishments----- number--	10	10	7	6	1	-	3	-	3	-	-	-	
	Employees ----- 1,000--	.1	.1	(D)	(Z)	(D)	-	(D)	-	(D)	-	-	-	
	Value added in mining ----- mil. dol.--	9.8	9.8		.4							-	-	
13	OIL AND GAS EXTRACTION													
	Establishments----- number--	23	23	9	-	-	9	-	-	-	-	-	14	
	Employees ----- 1,000--	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--												-	
131	Crude petroleum and natural gas													
	Establishments----- number--	9	9	9	-	-	9	-	-	-	-	-	-	
	Employees ----- 1,000--	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	-	
	Value added in mining ----- mil. dol.--												-	
138	Oil and gas field services													
	Establishments----- number--	14	14	-	-	-	-	-	-	-	-	-	14	
	Employees ----- 1,000--	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--												-	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments									Nonpro- ducing estab- lishments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants		
			Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods			
14	NONMETALLIC MINERALS, EXCEPT FUELS												
	Establishments..... number.....	181	179	2	-	2	-	143	7	128	8	33	
	Employees 1,000.....	1.9	(D)	(D)	(D)	(D)	-	(D)	.2	(D)	(Z)	.2	
	Value added in mining mil. dol.	85.1					-		8.5		2.6	2.2	
141	Dimension stone												
	Establishments..... number.....	1	1	1	-	1	-	-	-	-	-	-	
	Employees 1,000.....	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	
	Value added in mining mil. dol.						-		-	-	-	-	
142	Crushed and broken stone, including riprap												
	Establishments..... number.....	105	104	-	-	-	-	95	6	89	-	1	
	Employees 1,000.....	1.4	(D)	-	-	-	-	1.3	(D)	(D)	-	(D)	
	Value added in mining mil. dol.	69.7					-	69.4				8	
144	Sand and gravel											1	
	Establishments..... number.....	69	68	-	-	-	-	45	1	36	8	23	
	Employees 1,000.....	.4	(D)	-	-	-	-	(D)	(D)	(Z)	(Z)	(D)	
	Value added in mining mil. dol.	14.3	14.3	-	-	-	-			9.3	2.6	-	
145	Clay, ceramic, and refractory minerals												
	Establishments..... number.....	2	2	1	-	1	-	1	-	1	-	-	
	Employees 1,000.....	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	-	
	Value added in mining mil. dol.						-				-	-	
148	Nonmetallic minerals services												
	Establishments..... number.....	2	2	-	-	-	-	-	-	-	-	2	
	Employees 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	(D)	
	Value added in mining mil. dol.						-				-	-	
149	Miscellaneous nonmetallic minerals												
	Establishments..... number.....	2	2	-	-	-	-	2	-	2	-	-	
	Employees 1,000.....	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	
	Value added in mining mil. dol.						-				-	-	

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year	216	Cost of supplies	66.5
With 0 to 19 employees	190	Supplies used, minerals received, and purchased machinery installed	42.4
With 20 to 99 employees	24	Resales	6.0
With 100 employees or more	2	Purchased fuels consumed	10.4
All employees:		Purchased electric energy:	
Average for year	1,000	Quantity	72.3
Payroll for year	38.2	Cost	3.4
Production, development, and exploration workers:		Electric energy generated less sold	4.1
Average for year	1,000	Contract work	4.4
March	1.6	Cost of purchased communication services	.2
May	1.4	Value of shipments and receipts	153.1
August	1.7	Value of resales	6.0
November	1.6	Capital expenditures during year (except land and mineral rights)	16.9
Hours	3.3	New capital expenditures during year	13.5
January to March	do	Buildings and other structures, except land	.4
April to June	.6	Machinery and equipment	13.1
July to September	.9	Used capital expenditures during year	3.1
October to December	.9	Buildings and other structures, except land	(Z)
Wages	27.4	Machinery and equipment	3.0
Supplemental labor costs not included in payroll	7.5	Mineral exploration and development ¹	.3
Legally required expenditures, including Social Security contributions	4.1	Rental payments during year	2.2
Payments for voluntary programs	3.4	Buildings and other structures, except land	.3
Value added by mining	103.5	Machinery and equipment	1.9
Expensed mineral exploration, development, land, and rights ^{1,2}			3.3

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories ¹	22.5	20.4
Detail by method of valuation:		
Subject to LIFO costing ²	(D)	(D)
LIFO reserve	(D)	(D)
LIFO value	(D)	(D)
Not subject to LIFO costing	13.2	10.8
Valuation method not reported ³	(D)	(D)
Amount subject to LIFO reported without associated reserve and value ⁴	-	-

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	Iowa	E2	216	26	2.1	38.2	1.6	3.3	27.4	103.5	66.5	153.1	16.9
	Adair County	-	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.9
14	Nonmetallic minerals, except fuels	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Hardin County	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap	-	5	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ² Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
14	Iowa—Con. Johnson County -----	E3	3	-	(Z)	1.1	(Z)	.1	1.0	3.8	(D)	5.1	(D)	(NA)
14	Nonmetallic minerals, except fuels -----	E3	3	-	(Z)	1.1	(Z)	.1	1.0	3.8	(D)	5.1	(D)	(NA)
14	Linn County -----	E3	11	4	.3	5.7	.2	.4	3.7	12.9	6.7	16.3	3.3	(NA)
14	Nonmetallic minerals, except fuels -----	E3	9	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
142	Crushed and broken stone, including riprap -----	E3	6	4	.3	5.4	.2	.4	3.4	11.9	6.2	15.0	3.2	(NA)
12	Monroe County -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
12	Bituminous coal and lignite mining -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
121	Bituminous coal and lignite mining -----	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
12	Polk County -----	E8	15	1	.2	3.9	(Z)	.1	.9	8.4	(D)	11.9	(D)	.2
13	Oil and gas extraction -----	E9	5	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas -----	E9	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
13	Scott County -----	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)
14	Nonmetallic minerals, except fuels -----	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)
142	Crushed and broken stone, including riprap -----	-	3	2	.1	1.7	.1	.1	1.4	6.6	(D)	8.7	(D)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class		All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Iowa -----	216	2	-	10	23	181	Iowa—Con.							
0 to 4 employees -----	100	1	-	5	20	74	Benton County -----		2	-	-	-	-	-
5 to 9 employees -----	53	1	-	1	2	49	0 to 19 employees -----		2	-	-	-	-	-
10 to 19 employees -----	37	-	-	1	1	35	Black Hawk County -----		3	-	-	-	-	3
20 to 49 employees -----	21	-	-	2	-	19	0 to 19 employees -----		3	-	-	-	-	3
50 to 99 employees -----	3	-	-	1	-	2	Boone County -----		3	-	-	-	-	3
100 to 249 employees -----	2	-	-	-	-	2	0 to 19 employees -----		2	-	-	-	-	2
Adair County -----	4	-	-	-	2	2	0 to 19 employees -----		3	-	-	-	-	3
0 to 19 employees -----	3	-	-	-	2	1	Boone County -----		3	-	-	-	-	3
100 to 249 employees -----	1	-	-	-	-	1	0 to 19 employees -----		2	-	-	-	-	2
Allamakee County -----	1	-	-	-	-	1	20 to 99 employees -----		1	-	-	-	-	1
0 to 19 employees -----	1	-	-	-	-	1	Buchanan County -----		2	-	-	-	-	2
Appanoose County -----	5	-	-	1	-	4	0 to 19 employees -----		2	-	-	-	-	2
0 to 19 employees -----	4	-	-	1	-	3	Buena Vista County -----		1	-	-	-	-	1
20 to 99 employees -----	1	-	-	-	-	1	0 to 19 employees -----		1	-	-	-	-	1
Audubon County -----	1	-	-	-	-	1	Butler County -----		1	-	-	-	-	1
0 to 19 employees -----	1	-	-	-	-	1	0 to 19 employees -----		1	-	-	-	-	1

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Iowa—Con.							Iowa—Con.							
Carroll County	3	—	—	—	—	3	Henry County	2	—	—	—	—	—	2
0 to 19 employees	2	—	—	—	—	2	0 to 19 employees	2	—	—	—	—	—	2
20 to 99 employees	1	—	—	—	—	1	Howard County	1	—	—	—	—	—	1
Cass County	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	Humboldt County	4	—	—	—	—	—	4
Cerro Gordo County	3	—	—	—	—	1	0 to 19 employees	3	—	—	—	—	—	3
0 to 19 employees	3	—	—	—	—	1	20 to 99 employees	1	—	—	—	—	—	1
Cherokee County	1	—	—	—	—	—	Jackson County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
Chickasaw County	3	—	—	—	—	—	Jasper County	3	—	—	—	—	—	3
0 to 19 employees	3	—	—	—	—	3	0 to 19 employees	3	—	—	—	—	—	3
Clarke County	1	—	—	—	—	—	Jefferson County	2	1	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	2	1	—	—	—	—	1
Clay County	5	—	—	—	—	2	Johnson County	3	—	—	—	—	—	3
0 to 19 employees	5	—	—	—	—	2	0 to 19 employees	3	—	—	—	—	—	3
Clayton County	2	—	—	—	—	—	Jones County	2	—	—	—	—	—	2
0 to 19 employees	2	—	—	—	—	—	0 to 19 employees	1	—	—	—	—	—	1
Clinton County	4	—	—	1	—	—	20 to 99 employees	1	—	—	—	—	—	1
0 to 19 employees	4	—	—	1	—	—	Keokuk County	5	—	—	—	—	—	5
Crawford County	1	—	—	—	—	1	0 to 19 employees	4	—	—	—	—	—	4
0 to 19 employees	1	—	—	—	—	1	20 to 99 employees	1	—	—	—	—	—	1
Dallas County	5	—	—	—	—	—	Kossuth County	1	—	—	—	—	—	1
0 to 19 employees	5	—	—	—	—	—	0 to 19 employees	1	—	—	—	—	—	1
Decatur County	2	—	—	—	—	—	Linn County	11	—	—	—	—	—	2
0 to 19 employees	2	—	—	—	—	—	0 to 19 employees	7	—	—	—	—	—	5
Delaware County	2	—	—	—	—	—	20 to 99 employees	3	—	—	—	—	—	3
0 to 19 employees	1	—	—	—	—	—	100 to 249 employees	1	—	—	—	—	—	1
Des Moines County	5	1	—	—	—	—	Louisa County	4	—	—	—	—	—	3
0 to 19 employees	5	1	—	—	—	—	0 to 19 employees	4	—	—	—	—	—	3
Dickinson County	1	—	—	—	—	—	Lyon County	2	—	—	—	1	—	1
0 to 19 employees	1	—	—	—	—	—	0 to 19 employees	2	—	—	—	1	—	1
Dubuque County	4	—	—	—	—	—	Madison County	5	—	—	—	—	—	5
0 to 19 employees	4	—	—	—	—	—	0 to 19 employees	5	—	—	—	—	—	5
Emmet County	1	—	—	—	—	1	Mahaska County	5	—	—	—	4	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	4	—	—	3	—	1	1
Fayette County	3	—	—	—	—	—	20 to 99 employees	1	—	—	1	—	—	—
0 to 19 employees	2	—	—	—	—	—	Marion County	4	—	—	1	—	—	3
20 to 99 employees	1	—	—	—	—	—	0 to 19 employees	3	—	—	—	—	—	3
Floyd County	2	—	—	—	—	1	Marshall County	3	—	—	—	—	—	3
0 to 19 employees	2	—	—	—	—	1	0 to 19 employees	3	—	—	—	—	—	3
Franklin County	1	—	—	—	—	—	Mills County	2	—	—	—	—	—	2
0 to 19 employees	1	—	—	—	—	—	0 to 19 employees	2	—	—	—	—	—	2
Fremont County	3	—	—	—	—	—	Mitchell County	1	—	—	—	—	—	1
0 to 19 employees	3	—	—	—	—	—	0 to 19 employees	1	—	—	—	—	—	1
Greene County	1	—	—	—	—	—	Monroe County	1	—	—	1	—	—	—
0 to 19 employees	1	—	—	—	—	—	20 to 99 employees	1	—	—	1	—	—	—
Guthrie County	1	—	—	—	—	—	Montgomery County	2	—	—	—	—	—	2
0 to 19 employees	1	—	—	—	—	—	0 to 19 employees	2	—	—	—	—	—	2
Hancock County	2	—	—	—	—	—	Muscatine County	1	—	—	—	—	—	1
0 to 19 employees	2	—	—	—	—	—	20 to 99 employees	1	—	—	—	—	—	1
Hardin County	5	—	—	—	—	—	O'Brien County	3	—	—	—	—	—	3
0 to 19 employees	4	—	—	—	—	—	0 to 19 employees	3	—	—	—	—	—	3
20 to 99 employees	1	—	—	—	—	—	Osceola County	1	—	—	—	—	—	1
Harrison County	2	—	—	—	—	—	0 to 19 employees	1	—	—	—	—	—	1
20 to 99 employees	2	—	—	—	—	—	Osceola County	1	—	—	—	—	—	1

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Iowa—Con.							Iowa—Con.						
Page County -----	2	-	-	-	-	2	Taylor County -----	1	-	-	-	-	1
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	1	-	-	-	-	1
Palo Alto County -----	3	-	-	-	-	3	Van Buren County -----	2	-	-	-	-	1
0 to 19 employees-----	3	-	-	-	-	3	0 to 19 employees-----	1	-	-	-	1	-
20 to 99 employees -----	1	-	-	-	-	1	20 to 99 employees -----	1	-	-	-	-	1
Polk County -----	15	-	-	1	5	9	Wapello County -----	2	-	-	-	-	2
0 to 19 employees-----	14	-	-	1	5	8	0 to 19 employees-----	2	-	-	-	-	2
20 to 99 employees -----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
Pottawattamie County -----	1	-	-	-	1	-	Warren County -----	2	-	-	-	-	2
0 to 19 employees-----	1	-	-	-	1	-	0 to 19 employees-----	2	-	-	-	-	2
Poweshiek County -----	2	-	-	-	-	2	Washington County -----	1	-	-	-	-	1
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	1	-	-	-	-	1
Sac County -----	2	-	-	-	-	2	Webster County -----	3	-	-	-	-	3
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	3	-	-	-	-	3
Scott County -----	3	-	-	-	-	3	Winnebago County -----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
20 to 99 employees -----	2	-	-	-	-	2	0 to 19 employees-----	4	-	-	-	-	4
Shelby County -----	3	-	-	-	1	2	0 to 19 employees-----	4	-	-	-	-	4
0 to 19 employees-----	3	-	-	-	1	2	0 to 19 employees-----	1	-	-	-	-	1
Sioux County -----	2	-	-	-	-	2	0 to 19 employees-----	3	-	-	-	-	3
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	2	-	-	-	-	2
Story County -----	2	-	-	-	-	2	20 to 99 employees -----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
20 to 99 employees -----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1



Kansas

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	7

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	7
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	13
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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 4,451 establishments classified in mineral industries in Kansas amounted to \$6,345 million in 1982, or 3 percent of the Nation's total. This compares to \$2,729 million in 1977 when it also was 3 percent of the Nation's total. Value added by mining amounted to \$3,196 million in 1982, and payroll in mining amounted to \$461 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in

price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Kansas was 19.9 thousand in 1982, an increase of 63 percent over 1977. It accounted for 2 percent of the Nation's total. Oil and gas extraction led all other mineral industries in the State, accounting for 91 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	24 451	222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	6 344.7	418.5
1977 ¹	1 182	156	12.2	180.5	8.8	18.6	124.3	1 134.3	1 793.1	2 728.7	198.6
1972 ¹	950	130	8.9	74.8	6.8	14.0	52.7	466.0	309.9	725.1	50.8
1967 ¹	1 115	147	10.6	65.2	8.7	17.5	48.7	431.8	257.0	636.2	52.6
1963	1 809	170	14.1	72.5	11.5	23.3	55.8	433.4	273.8	615.1	92.0
1958	1 599	189	15.8	73.0	12.6	25.1	53.5	378.4	221.7	532.7	67.3
Excluding oil and gas extraction industries:											
1982 ¹	131	27	1.7	32.3	1.3	2.5	24.5	78.2	33.9	103.0	9.1
1977 ¹	174	32	2.1	28.1	1.8	3.5	22.5	78.4	(D)	100.6	(D)
1972 ¹	149	30	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 ¹	171	25	1.8	10.9	1.6	3.3	9.1	31.0	10.3	38.2	3.1
1963 ³	286	26	2.2	11.2	1.9	4.0	9.3	27.3	17.4	36.4	8.4
1958 ³	237	34	2.1	10.1	1.8	3.7	7.9	25.4	9.8	32.7	2.5

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

³Includes data for mining operations at manufacturing locations.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982								1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	
		Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	All mineral industries	E1	4 451	222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	6 344.7	418.5
12	Bituminous coal and lignite mining	E1	15	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	12.2
121	Bituminous coal and lignite mining	E1	15	8	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1 134.3
1211	Bituminous coal and lignite	E1	13	8	.4	10.5	.3	.6	8.6	27.1	11.1	35.3	17.5
13	Oil and gas extraction	E1	4 320	195	18.2	428.8	13.1	27.7	270.8	3 117.5	3 533.6	6 241.6	409.4
1311	Crude petroleum and natural gas	E2	2 269	71	7.7	207.7	4.4	8.7	90.0	2 115.8	702.4	2 527.9	290.3
1321	Natural gas liquids	-	22	9	.4	11.1	.4	.8	10.0	448.0	2 559.9	2 998.1	9.8
138	Oil and gas field services	E2	2 029	115	10.1	210.0	8.3	18.3	170.7	553.7	271.3	715.6	109.4
1381	Drilling oil and gas wells	E2	769	55	4.4	89.4	3.9	7.9	75.4	230.2	128.3	306.1	52.4
1382	Oil and gas field exploration services	E3	218	5	.8	12.8	.5	1.0	9.0	34.3	11.6	40.7	5.2
1389	Oil and gas field services, n.e.c.	E2	1 042	55	4.9	107.8	4.0	9.3	86.3	289.1	131.5	368.8	51.8
14	Nonmetallic minerals, except fuels	E2	111	19	1.3	21.4	1.0	1.8	15.6	49.9	22.4	66.2	6.0
142	Crushed and broken stone, including riprap	E1	41	12	.7	10.9	.5	1.0	8.2	27.7	9.9	34.7	3.0
1422	Crushed and broken limestone	-	33	9	.5	8.3	.4	.8	6.5	22.2	7.9	27.7	2.4
1429	Crushed and broken stone, n.e.c.	E3	8	3	.2	2.5	.1	.2	1.7	5.5	2.0	7.0	.5
144	Sand and gravel	E3	59	3	.4	7.4	.3	.5	5.0	15.6	8.6	22.2	2.0
1442	Construction sand and gravel	E3	59	3	.4	7.4	.3	.5	5.0	15.6	8.6	22.2	.5

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers			Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)			
Nonmetallic mineral mines included in manufactures	17	.2	2.3	2.2	(X)	
Crushed and broken stone, including riprap	5	.1	1.1	.9	2	131.4
Crushed and broken limestone	5	.1	1.1	.9	2	131.4
Gypsum	2	(D)	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of estab- lish- ments	Producing establishments										Nonpro- ducing estab- lish- ments	
			Total	Mines only			Mines with preparation plants				Separately operated prepara- tion plants	Undistri- buted ¹		
				Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods				
	ALL MINERAL INDUSTRIES													
	Establishments----- number	4 451	4 428	2 254	5	9	2 240	69	5	60	4	22	2 083	
	Employees ----- 1,000	19.9	19.8	6.2	(Z)	(Z)	6.2	1.3	.2	1.1	(Z)	.4	11.9	
	Value added in mining ----- mil. dol.	3 195.7	3 193.0	2 118.6	2.9	2.3	2 113.4	65.6	5.7	58.0	1.9	448.0	560.8	
10	METAL MINING													
	Establishments----- number	5	5	2	2	-	-	-	-	-	-	-	3	
	Employees ----- 1,000	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.					-	-	-	-	-	-	-	-	
108	Metal mining services													
	Establishments----- number	2	2	-	-	-	-	-	-	-	-	-	2	
	Employees ----- 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.					-	-	-	-	-	-	-	-	
109	Miscellaneous metal ores													
	Establishments----- number	3	3	2	2	-	-	-	-	-	-	-	1	
	Employees ----- 1,000	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.					-	-	-	-	-	-	-	-	
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments----- number	15	13	3	3	-	-	5	-	5	-	-	5	
	Employees ----- 1,000	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	
	Value added in mining ----- mil. dol.					-	-	-	-	-	-	-	(D)	
121	Bituminous coal and lignite mining													
	Establishments----- number	15	13	3	3	-	-	5	-	5	-	-	5	
	Employees ----- 1,000	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	
	Value added in mining ----- mil. dol.					-	-	-	-	-	-	-	(D)	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—

Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

SIC code	Industry group and item	All types of establish- ments	Producing establishments									Nonpro- duc- ing estab- lish- ments
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistrib- uted ¹
			Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods		
13	OIL AND GAS EXTRACTION											
	Establishments-----number--	4 320	4 302	2 240	-	-	2 240	-	-	-	22	2 040
	Employees -----1,000--	18.2	18.2	6.2	-	-	6.2	-	-	-	.4	11.6
	Value added in mining ----- mil. dol.--	3 117.5	3 115.1	2 113.4	-	-	2 113.4	-	-	-	448.0	553.7
131	Crude petroleum and natural gas											
	Establishments-----number--	2 269	2 251	2 240	-	-	2 240	-	-	-	-	11
	Employees -----1,000--	7.7	7.7	6.2	-	-	6.2	-	-	-	-	1.5
	Value added in mining ----- mil. dol.--	2 115.8	2 113.4	2 113.4	-	-	2 113.4	-	-	-	-	2.4
132	Natural gas liquids											
	Establishments-----number--	22	22	-	-	-	-	-	-	-	22	-
	Employees -----1,000--	.4	.4	-	-	-	-	-	-	-	.4	-
	Value added in mining ----- mil. dol.--	448.0	448.0	-	-	-	-	-	-	-	448.0	-
138	Oil and gas field services											
	Establishments-----number--	2 029	2 029	-	-	-	-	-	-	-	-	2 029
	Employees -----1,000--	10.1	10.1	-	-	-	-	-	-	-	-	10.1
	Value added in mining ----- mil. dol.--	553.7	553.7	-	-	-	-	-	-	-	-	553.7
14	NONMETALLIC MINERALS, EXCEPT FUELS											
	Establishments-----number--	111	108	9	-	9	-	64	5	55	4	-
	Employees -----1,000--	1.3	(D)	(Z)	2.3	2.3	-	(D)	2.2	(D)	(Z)	35
	Value added in mining ----- mil. dol.--	49.9	(D)	(D)	-	-	-	(D)	5.7	(D)	1.9	(D)
141	Dimension stone											
	Establishments-----number--	2	2	2	-	2	-	-	-	-	-	-
	Employees -----1,000--	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-
	Value added in mining ----- mil. dol.--	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-
142	Crushed and broken stone, including riprap											
	Establishments-----number--	41	39	2	-	2	-	34	3	31	-	3
	Employees -----1,000--	.7	(D)	(D)	-	(D)	-	27.1	(D)	(D)	-	(D)
	Value added in mining ----- mil. dol.--	27.7	(D)	(D)	-	(D)	-	27.1	(D)	(D)	-	(D)
144	Sand and gravel											
	Establishments-----number--	59	58	4	-	4	-	24	-	20	4	-
	Employees -----1,000--	.4	(D)	(D)	-	(D)	-	8.0	-	6.1	(Z)	30
	Value added in mining ----- mil. dol.--	15.6	(D)	(D)	-	(D)	-	8.0	-	6.1	1.9	(D)
145	Clay, ceramic, and refractory minerals											
	Establishments-----number--	3	3	1	-	1	-	2	-	2	-	-
	Employees -----1,000--	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining ----- mil. dol.--	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-
147	Chemical and fertilizer mineral mining											
	Establishments-----number--	2	2	-	-	-	-	2	2	-	-	-
	Employees -----1,000--	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining ----- mil. dol.--	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments									Nonprodu- cing estab- lishments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistrib- uted ¹	
			Total	Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods		
14	NONMETALLIC MINERALS, EXCEPT FUELS—Con.												
148	Nonmetallic minerals services												
	Establishments—number—	2	2	2	—	—	—	—	—	—	—	—	—
	Employees ——1,000—	(D)	(D)	(D)	—	—	—	—	—	—	—	—	—
	Value added in mining —— mil. dol.—											2	(D)
149	Miscellaneous nonmetallic minerals												
	Establishments—number—	2	2	2	—	—	—	—	2	—	2	—	—
	Employees ——1,000—	(D)	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—
	Value added in mining —— mil. dol.—												—

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year —— number—		Cost of supplies —— mil. dol.—	3 567.5
With 0 to 19 employees —— do—	4 451	Supplies used, minerals received, and purchased machinery installed —— do—	3 084.8
With 20 to 99 employees —— do—	4 229	Resales —— do—	10.8
With 100 employees or more —— do—	210	Purchased fuels consumed —— do—	101.9
	12	Purchased electric energy:	
		Quantity —— mil. kWh—	
All employees:		Cost —— mil. dol.—	1 198.1
Average for year ——1,000—	19.9	Electric energy generated less sold —— mil. kWh—	52.6
Payroll for year —— mil. dol.—	461.2	Contract work —— mil. dol.—	32.6
		Cost of purchased communication services —— do—	317.4
Production, development, and exploration workers:		Value of shipments and receipts —— do—	3.2
Average for year ——1,000—	1,000	Value of resales —— do—	6 344.7
March —— do—	14.4	Capital expenditures during year (except land and mineral rights) —— do—	12.3
May —— do—	14.8	New capital expenditures during year —— do—	418.5
August —— do—	14.6	Buildings and other structures, except land —— do—	201.5
November —— do—	14.3	Machinery and equipment —— do—	20.2
	13.9	Used capital expenditures during year —— do—	181.2
Hours —— millions—		Buildings and other structures, except land —— do—	22.1
January to March —— do—	30.2	Machinery and equipment —— do—	3.0
April to June —— do—	7.6	Mineral exploration and development ¹ —— do—	19.1
July to September —— do—	7.6	Rental payments during year —— do—	194.9
October to December —— do—	7.5	Buildings and other structures, except land —— do—	22.4
	7.5	Machinery and equipment —— do—	8.2
Wages —— mil. dol.—	295.2	Expensed mineral exploration, development, land, and rights ^{1, 2} —— do—	14.2
Supplemental labor costs not included in payroll —— do—	73.1		783.5
Legally required expenditures, including Social Security contributions —— do—	36.3		
Payments for voluntary programs —— do—	36.8		
Value added by mining —— do—	3 195.7		

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories¹	181.2	150.0
Detail by method of valuation:		
Subject to LIFO costing ²	(D)	(D)
LIFO reserve	(D)	(D)
LIFO value	8.1	6.1
Not subject to LIFO costing	67.9	54.1
Valuation method not reported ³	83.3	87.7
Amount subject to LIFO reported without associated reserve and value ⁴	(D)	(D)

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)		
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
	Kansas	E1	4 451	222	19.9	461.2	14.4	30.2	295.2	3 195.7	3 567.5	8 344.7	418.5	12.2	1 134.3
	Allen County	E8	58	2	.3	4.1	.2	.4	3.3	27.7	(D)	37.9	(D)	.1	7.9
13	Oil and gas extraction	E8	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.9
138	Oil and gas field services	E7	32	-	.1	1.8	.1	.3	1.6	5.0	2.7	6.5	1.1	(NA)	(NA)
	Anderson County	E4	18	-	.1	.9	(Z)	.1	.9	5.8	2.3	6.9	1.3	(NA)	(NA)
13	Oil and gas extraction	E4	18	-	.1	.9	(Z)	.1	.9	5.8	2.3	6.9	1.3	(NA)	(NA)
131	Crude petroleum and natural gas	E2	8	-	(Z)	.6	(Z)	(Z)	.5	4.2	(D)	5.1	(D)	(NA)	(NA)
	Barber County	E2	122	8	.5	10.5	.4	.8	7.3	56.7	25.8	72.5	9.9	.4	24.7
13	Oil and gas extraction	E2	121	8	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E1	69	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	11.8
132	Natural gas liquids	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	E4	51	5	.3	5.9	.2	.6	4.6	13.9	6.6	18.1	2.3	(NA)	(NA)
	Barton County	E3	221	23	1.8	37.0	1.3	2.8	29.4	126.9	58.2	160.4	24.8	1.4	64.8
13	Oil and gas extraction	E3	218	22	1.6	36.1	1.3	2.8	28.8	124.5	(D)	157.0	(D)	1.4	64.1
131	Crude petroleum and natural gas	E2	99	8	.5	12.1	.4	.7	8.4	59.2	(D)	78.1	(D)	.7	40.3
138	Oil and gas field services	E4	119	14	1.1	24.0	.9	2.0	20.4	65.2	29.2	78.9	15.5	.7	23.8
	Bourbon County	E1	18	3	.2	4.0	.2	.3	3.7	11.9	5.2	16.5	.5	(NA)	(NA)
12	Bituminous coal and lignite mining	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Butler County	E1	105	8	.8	11.8	.5	.9	8.4	86.9	30.2	109.2	8.0	.4	25.9
13	Oil and gas extraction	E2	103	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E2	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	16.2
138	Oil and gas field services	E1	46	5	.3	5.5	.2	.5	4.6	15.3	8.8	22.0	2.1	(NA)	(NA)
	Chase County	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction	-	11	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Chautauqua County	E6	46	2	.2	3.1	.1	.3	2.5	15.1	8.6	19.3	4.4	.1	4.0
13	Oil and gas extraction	E5	45	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E5	25	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cherokee County	E1	5	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cheyenne County	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	-	4	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

SIC code	Geographic area and industry group ¹	1982										1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)					
	Kansas—Con.												
	Clark County -----	-	62	-	.1	2.5	.1	.2	2.0	38.2	8.0	34.2	12.1
13	Oil and gas extraction -----	-	62	-	.1	2.5	.1	.2	2.0	38.2	8.0	34.2	12.1
131	Crude petroleum and natural gas -----	-	28	-	(Z)	.5	(Z)	(Z)	.4	33.8	5.3	27.7	11.4
138	Oil and gas field services -----	E1	34	-	.1	2.0	.1	.2	1.6	4.5	2.7	6.4	.7
	Coffey County -----	E4	15	-	.1	.8	(Z)	.1	.8	6.2	1.4	7.5	.2
13	Oil and gas extraction -----	E4	15	-	.1	.8	(Z)	.1	.6	6.2	1.4	7.5	.2
131	Crude petroleum and natural gas -----	E4	7	-	(Z)	.6	(Z)	.1	.4	5.8	1.2	6.9	.1
	Comanche County -----	-	57	-	.1	2.2	.1	.1	1.6	153.1	21.8	164.1	10.8
13	Oil and gas extraction -----	-	57	-	.1	2.2	.1	.1	1.6	153.1	21.8	164.1	10.8
131	Crude petroleum and natural gas -----	-	28	-	(Z)	.7	(Z)	(Z)	.4	149.7	19.7	159.2	10.2
	Cowley County -----	E2	82	5	.4	8.2	.3	.7	6.3	36.6	17.6	51.0	3.2
13	Oil and gas extraction -----	E2	78	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas -----	E3	48	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services -----	E1	30	1	.1	2.9	.1	.3	2.4	7.9	3.7	10.5	1.1
	Crawford County -----	E3	18	6	.3	7.9	.2	.5	5.6	19.7	6.4	23.0	3.1
12	Bituminous coal and lignite mining -----	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining -----	E4	5	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction -----	-	9	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services -----	-	5	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Decatur County -----	E2	37	2	.2	3.5	.1	.3	3.0	17.8	8.1	23.2	.2
13	Oil and gas extraction -----	E2	37	2	.2	3.5	.1	.3	3.0	17.8	8.1	23.2	.1
131	Crude petroleum and natural gas -----	E2	22	-	(Z)	.5	(Z)	(Z)	.4	9.8	4.0	12.3	1.5
138	Oil and gas field services -----	E1	15	2	.1	3.1	.1	.3	2.6	8.0	4.2	10.9	1.3
	Edwards County -----	-	61	-	.1	1.6	(Z)	.1	1.0	25.0	11.1	27.4	.7
13	Oil and gas extraction -----	-	61	-	.1	1.6	(Z)	.1	1.0	25.0	11.1	27.4	.1
131	Crude petroleum and natural gas -----	-	35	-	(Z)	.7	(Z)	(Z)	.3	22.6	10.2	24.4	8.4
	Elk County -----	E3	30	-	.1	1.0	.1	.1	.9	5.6	2.4	7.3	.6
	Ellis County -----	E1	163	12	.9	18.0	.7	1.6	13.3	125.4	48.3	153.1	.4
13	Oil and gas extraction -----	E1	162	12	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas -----	E1	85	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2
138	Oil and gas field services -----	E2	77	10	.7	13.4	.6	1.3	10.5	34.3	16.3	44.7	38.5
	Ellsworth County -----	-	64	1	.1	2.1	.1	.2	1.6	13.3	4.2	16.3	1.3
13	Oil and gas extraction -----	-	63	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas -----	-	40	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Finney County -----	-	62	2	.2	3.1	.1	.2	2.1	58.2	43.1	97.2	.1
13	Oil and gas extraction -----	-	61	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas -----	-	35	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
132	Natural gas liquids -----	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ford County -----	-	45	1	.1	1.7	.1	.1	1.3	18.9	13.7	28.5	4.1
13	Oil and gas extraction -----	-	42	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas -----	-	18	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
132	Natural gas liquids -----	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services -----	-	23	1	(Z)	1.2	(Z)	.1	.9	3.9	1.8	5.4	.3
	Franklin County -----	E3	27	3	.2	3.1	.1	.3	2.3	11.4	4.7	14.4	1.7
13	Oil and gas extraction -----	E5	24	1	.1	1.6	.1	.2	1.3	8.2	3.2	9.9	1.4
138	Oil and gas field services -----	E2	15	1	.1	1.2	.1	.2	1.1	4.5	(D)	5.2	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)
		E ² Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
	Kansas—Con.												
	Gove County	-	42	2	.1	2.2	.1	.2	20.9	9.2	17.9	12.2	(Z) 5.2
13	Oil and gas extraction	-	42	2	.1	2.2	.1	.2	20.9	9.2	17.9	12.2	(Z) 5.2
131	Crude petroleum and natural gas	-	21	-	(Z)	.4	(Z)	.2	14.9	(D)	11.3	(D)	(Z) 5.0
138	Oil and gas field services	-	21	2	.1	1.8	.1	.2	6.0	(D)	6.7	(D)	(NA) (NA)
	Graham County	E1	86	5	.2	5.0	.2	.4	35.0	13.8	43.0	5.5	.2 17.9
13	Oil and gas extraction	E1	86	5	.2	5.0	.2	.4	35.0	13.6	43.0	5.5	.2 17.9
131	Crude petroleum and natural gas	-	51	1	.1	1.5	.1	.1	25.6	9.4	31.2	3.8	.1 16.2
138	Oil and gas field services	E2	35	4	.2	3.5	.1	.3	9.3	4.2	11.8	1.7	(NA) (NA)
	Grant County	E1	59	7	.4	10.0	.4	.7	184.8	315.9	472.1	8.5	.3 100.9
13	Oil and gas extraction	E1	59	7	.4	10.0	.4	.7	164.8	315.9	472.1	8.5	.3 100.9
131	Crude petroleum and natural gas	E4	40	2	.2	5.3	.2	.3	3.8	121.1	(D)	154.3	(D) .1
132	Natural gas liquids	-	4	4	.1	3.4	.1	.3	40.6	(D)	314.0	(D)	.1 30.7
	Gray County	-	18	-	(Z)	.3	(Z)	(Z)	.2	7.1	3.4	8.6	1.9 (NA) (NA)
13	Oil and gas extraction	-	18	-	(Z)	.3	(Z)	(Z)	.2	7.1	3.4	8.6	1.9 (NA) (NA)
131	Crude petroleum and natural gas	-	9	-	(Z)	.1	(Z)	(Z)	(Z)	6.8	(D)	8.1	(D) (NA) (NA)
	Greeley County	-	17	-	(Z)	.8	(Z)	(Z)	.5	8.2	2.8	9.9	1.2 (NA) (NA)
13	Oil and gas extraction	-	17	-	(Z)	.6	(Z)	(Z)	.5	8.2	2.8	9.9	1.2 (NA) (NA)
131	Crude petroleum and natural gas	-	9	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Greenwood County	E5	63	1	.2	4.4	.2	.4	3.4	28.8	12.0	33.9	4.9 .2
13	Oil and gas extraction	E5	63	1	.2	4.4	.2	.4	3.4	26.8	12.0	33.9	4.9 .2 10.7
131	Crude petroleum and natural gas	E5	33	-	.1	1.9	.1	.1	1.3	20.5	9.6	27.0	3.1 .1 8.0
138	Oil and gas field services	E3	30	1	.1	2.5	.1	.2	2.1	6.3	2.4	7.0	1.7 (NA) (NA)
	Hamilton County	-	21	-	(Z)	.3	(Z)	(Z)	.2	10.7	1.5	11.4	.8 (Z) 7.1
13	Oil and gas extraction	-	21	-	(Z)	.3	(Z)	(Z)	.2	10.7	1.5	11.4	.8 (NA) (NA)
131	Crude petroleum and natural gas	-	14	-	(Z)	.2	(Z)	(Z)	.2	10.5	1.3	11.1	.7 (NA) (NA)
	Harper County	-	84	2	.2	3.8	.1	.3	2.9	48.3	(D)	74.4	(D) .1 22.8
13	Oil and gas extraction	-	63	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) .1 22.6
131	Crude petroleum and natural gas	E1	31	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
132	Natural gas liquids	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
138	Oil and gas field services	-	31	-	.1	2.0	.1	.2	1.6	5.2	2.4	7.2	.5 (NA) (NA)
	Harvey County	E4	36	-	(Z)	.7	(Z)	.1	.6	7.9	4.3	11.7	.4 (NA) (NA)
13	Oil and gas extraction	E4	35	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
131	Crude petroleum and natural gas	E4	22	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
	Haskell County	-	38	-	.1	2.3	.1	.1	1.5	38.2	6.3	40.7	3.9 (Z) 19.0
13	Oil and gas extraction	-	37	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
131	Crude petroleum and natural gas	-	20	-	(Z)	1.1	(Z)	.1	.7	34.4	4.6	35.9	3.1 (NA) (NA)
	Hodgeman County	-	56	-	(Z)	.9	(Z)	.1	.7	16.8	5.6	20.4	2.0 (Z) 8.1
13	Oil and gas extraction	-	56	-	(Z)	.9	(Z)	.1	.7	16.8	5.6	20.4	2.0 (Z) 8.1
131	Crude petroleum and natural gas	-	33	-	(Z)	.3	(Z)	(Z)	.2	15.3	4.9	18.4	1.8 (Z) 7.3
	Jefferson County	E1	7	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
14	Nonmetallic minerals, except fuels	E1	4	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D) (NA) (NA)
	Johnson County	E8	39	3	.2	2.9	.1	.2	2.0	20.9	8.7	28.3	1.3 .1 13.6
13	Oil and gas extraction	E7	32	1	.1	1.3	.1	.1	1.0	18.1	(D)	25.0	(D) (NA) (NA)
131	Crude petroleum and natural gas	E9	18	-	(Z)	.7	(Z)	(Z)	.5	11.6	(D)	16.8	(D) (Z) 6.2
138	Oil and gas field services	E2	14	1	(Z)	.6	(Z)	(Z)	.5	6.6	2.7	8.2	1.1 (NA) (NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)						
	Kansas—Con.													
	Kearny County	—	30	—	.1	1.9	.1	.1	1.3	44.2	27.3	68.3	3.3	.1
13	Oil and gas extraction	—	30	—	.1	1.9	.1	.1	1.3	44.2	27.3	68.3	3.3	.1
131	Crude petroleum and natural gas	—	20	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
132	Natural gas liquids	—	1	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Kingman County	—	97	2	.2	4.5	.2	.3	3.8	59.9	79.2	132.1	7.1	.2
13	Oil and gas extraction	—	97	2	.2	4.5	.2	.3	3.8	59.9	79.2	132.1	7.1	.2
131	Crude petroleum and natural gas	—	56	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
132	Natural gas liquids	—	1	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	—	40	—	.1	1.8	.1	.1	1.5	5.1	2.1	6.7	.4	(NA)
	Kiowa County	—	57	—	.1	2.5	.1	.2	1.9	32.4	9.3	38.5	3.2	(Z)
13	Oil and gas extraction	—	57	—	.1	2.5	.1	.2	1.9	32.4	9.3	38.5	3.2	(Z)
131	Crude petroleum and natural gas	—	31	—	(Z)	1.2	(Z)	.1	.8	29.3	7.9	34.5	2.7	(Z)
	Labette County	E2	14	3	.1	2.8	.1	.2	2.3	7.6	2.1	8.9	.8	(NA)
12	Bituminous coal and lignite mining	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
121	Bituminous coal and lignite mining	E1	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Lane County	—	42	2	.1	2.8	.1	.3	2.4	27.8	13.4	33.7	7.5	.1
13	Oil and gas extraction	—	42	2	.1	2.8	.1	.3	2.4	27.8	13.4	33.7	7.5	.1
131	Crude petroleum and natural gas	—	22	—	(Z)	.5	(Z)	(Z)	.3	20.2	11.2	25.1	6.3	(Z)
138	Oil and gas field services	—	20	2	.1	2.4	.1	.2	2.1	7.6	2.3	8.6	1.3	(NA)
	Logan County	—	28	3	.1	2.4	.1	.2	1.7	9.5	4.8	11.6	2.7	(NA)
13	Oil and gas extraction	—	28	3	.1	2.4	.1	.2	1.7	9.5	4.8	11.6	2.7	(NA)
138	Oil and gas field services	—	14	3	.1	2.2	.1	.2	1.6	5.6	2.1	6.9	.8	(NA)
	McPherson County	—	79	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1
13	Oil and gas extraction	—	78	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1
131	Crude petroleum and natural gas	E6	41	—	.1	1.0	.1	.1	.6	20.7	9.9	28.0	2.6	.1
132	Natural gas liquids	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	E1	36	2	.1	2.2	.1	.2	1.9	5.0	2.6	6.8	.8	(NA)
	Marion County	E2	41	2	.1	2.5	.1	.2	1.8	9.4	5.7	13.7	1.5	(NA)
13	Oil and gas extraction	E2	38	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E3	18	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Meade County	—	60	—	.1	2.1	.1	.1	1.8	24.2	7.7	21.4	10.5	.1
13	Oil and gas extraction	—	60	—	.1	2.1	.1	.1	1.8	24.2	7.7	21.4	10.5	.1
131	Crude petroleum and natural gas	—	32	—	(Z)	.6	(Z)	.1	.6	19.8	4.9	15.1	9.6	(Z)
138	Oil and gas field services	E1	28	—	.1	1.5	(Z)	.1	1.2	4.4	2.8	6.2	.9	(NA)
	Miami County	E9	34	2	.2	2.7	.1	.2	1.9	32.9	(D)	47.6	(D)	(NA)
13	Oil and gas extraction	E9	33	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E9	18	2	.1	2.1	.1	.2	1.4	31.2	14.5	45.4	.4	(NA)
	Montgomery County	E7	70	4	.4	6.9	.4	.7	5.3	31.9	17.5	45.7	3.6	.5
13	Oil and gas extraction	E7	68	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E8	31	1	.2	3.2	.2	.3	1.9	22.1	11.0	32.4	.7	.2
138	Oil and gas field services	E5	37	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.4 (NA)
	Morris County	—	19	—	(Z)	.5	(Z)	(Z)	.4	5.4	(D)	6.1	(D)	(NA)
13	Oil and gas extraction	—	19	—	(Z)	.5	(Z)	(Z)	.4	5.4	(D)	6.1	(D)	(NA)
131	Crude petroleum and natural gas	—	5	—	(Z)	.3	(Z)	(Z)	.3	5.0	(D)	5.4	(D)	(NA)
	Morton County	—	58	2	.2	4.1	.2	.3	2.9	89.7	26.1	99.8	16.0	.1
13	Oil and gas extraction	—	58	2	.2	4.1	.2	.3	2.9	89.7	26.1	99.8	16.0	.1
131	Crude petroleum and natural gas	—	26	1	(Z)	1.3	(D)	.1	1.1	82.5	20.5	88.1	14.9	(Z)
138	Oil and gas field services	E2	31	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)							
E2															
	Kansas—Con.														
	Neosho County	E7	61	5	.6	14.6	.5	1.2	12.0	62.1	(D)	82.1	(D)	.1	9.7
13	Oil and gas extraction	E7	59	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	8.4
131	Crude petroleum and natural gas	E9	25	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	6.3
138	Oil and gas field services	E6	33	4	.5	12.4	.4	1.0	10.4	38.1	20.5	48.5	10.0	(NA)	(NA)
	Ness County	E2	102	3	.3	7.5	.2	.5	5.4	49.7	18.5	62.5	5.8	.1	18.2
13	Oil and gas extraction	E2	101	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	—	59	—	.1	1.4	.1	.1	1.0	37.3	12.1	45.7	3.6	(Z)	15.5
138	Oil and gas field services	E6	42	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Norton County	E1	22	—	(Z)	.7	(Z)	.1	.5	5.3	2.2	6.8	.7	(NA)	(NA)
13	Oil and gas extraction	E1	22	—	(Z)	.7	(Z)	.1	.5	5.3	2.2	6.8	.7	(NA)	(NA)
131	Crude petroleum and natural gas	—	14	—	(Z)	.1	(Z)	(Z)	.1	4.1	1.5	5.0	.6	(NA)	(NA)
	Pawnee County	—	70	1	.1	2.3	.1	.2	1.9	18.8	6.3	22.1	3.1	(Z)	4.9
13	Oil and gas extraction	—	68	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	—	36	—	(Z)	.5	(Z)	(Z)	.2	14.2	4.2	15.9	2.5	(Z)	4.0
138	Oil and gas field services	—	32	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Phillips County	E1	27	2	.4	10.7	.1	.1	1.5	40.0	(D)	37.0	(D)	.2	16.1
13	Oil and gas extraction	E1	27	2	.4	10.7	.1	.1	1.5	40.0	(D)	37.0	(D)	.2	16.1
131	Crude petroleum and natural gas	E1	18	2	.4	10.5	.1	.1	1.3	39.4	(D)	36.1	(D)	.2	15.2
	Pratt County	E3	110	5	.4	10.2	.3	.7	7.4	58.3	22.9	71.9	9.3	.2	12.0
13	Oil and gas extraction	E3	109	5	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E4	55	2	.1	2.8	.1	.2	1.7	37.0	12.5	44.0	5.5	(Z)	7.4
138	Oil and gas field services	E3	54	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Rawlins County	—	24	—	(Z)	1.0	(Z)	.1	.8	10.0	3.8	13.0	.9	(Z)	6.9
13	Oil and gas extraction	—	24	—	(Z)	1.0	(Z)	.1	.8	10.0	3.8	13.0	.9	(Z)	6.9
131	Crude petroleum and natural gas	—	17	—	(Z)	.7	(Z)	.1	.6	9.3	(D)	11.9	(D)	(Z)	5.6
	Reno County	—	74	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction	—	70	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E1	38	—	(Z)	1.1	(Z)	.1	.8	15.5	6.4	19.2	2.7	(NA)	(NA)
132	Natural gas liquids	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Rice County	—	96	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	11.6
13	Oil and gas extraction	—	94	4	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E1	48	—	.1	1.4	(Z)	.1	.9	23.0	8.0	27.1	3.8	.1	8.1
132	Natural gas liquids	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	E3	45	3	.3	6.2	.3	.6	5.3	13.6	6.8	17.9	2.6	(NA)	(NA)
	Rooks County	E1	114	8	.6	13.0	.4	1.0	9.7	73.9	29.4	93.9	9.4	.2	21.3
13	Oil and gas extraction	E1	114	8	.6	13.0	.4	1.0	9.7	73.9	29.4	93.9	9.4	.2	21.3
131	Crude petroleum and natural gas	—	64	2	.2	4.0	.1	.2	2.2	53.6	19.7	66.2	7.1	.1	17.9
138	Oil and gas field services	E2	50	6	.4	9.0	.3	.8	7.4	20.3	9.7	27.7	2.3	(NA)	(NA)
	Rush County	—	55	1	.1	1.6	.1	.2	1.2	14.0	3.4	16.4	1.0	.1	14.4
13	Oil and gas extraction	—	55	1	.1	1.6	.1	.2	1.2	14.0	3.4	16.4	1.0	.1	14.4
131	Crude petroleum and natural gas	—	29	—	(Z)	.3	(Z)	(Z)	.2	9.0	2.2	10.6	.6	.1	13.9
138	Oil and gas field services	—	26	1	.1	1.3	.1	.2	1.0	5.0	1.2	5.8	.4	(NA)	(NA)
	Russell County	E2	133	8	.6	14.6	.5	1.2	11.9	106.4	41.2	136.3	11.3	.6	44.4
13	Oil and gas extraction	E2	133	8	.6	14.6	.5	1.2	11.9	106.4	41.2	136.3	11.3	.6	44.4
131	Crude petroleum and natural gas	E1	71	2	.2	5.8	.2	.4	4.4	86.7	30.1	109.3	7.5	.3	37.1
138	Oil and gas field services	E3	62	6	.4	8.8	.3	.8	7.6	19.7	11.1	26.9	3.8	.3	7.3
	Saline County	E6	22	—	(Z)	.4	(Z)	(Z)	.3	5.4	2.6	7.7	.4	(NA)	(NA)
13	Oil and gas extraction	E6	22	—	(Z)	.4	(Z)	(Z)	.3	5.4	2.6	7.7	.4	(NA)	(NA)
131	Crude petroleum and natural gas	E7	9	—	(Z)	.1	(Z)	(Z)	.1	4.7	(D)	6.7	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)						
	Kansas—Con.													
	Scott County	E9	24	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
13	Oil and gas extraction	E9	24	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
132	Natural gas liquids	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Sedgwick County	E6	278	37	3.6	110.9	1.6	3.3	33.6	218.3	216.8	421.4	13.6	1.8
13	Oil and gas extraction	E6	262	36	3.5	109.2	1.5	3.2	32.5	214.9	214.1	415.8	13.1	1.7
131	Crude petroleum and natural gas	E8	153	22	2.4	88.3	.8	1.6	16.6	161.8	(D)	233.0	(D)	1.3
132	Natural gas liquids	-	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	E8	108	14	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Seward County	-	101	6	.6	16.5	.5	1.0	10.9	94.8	595.5	669.3	21.0	.4
13	Oil and gas extraction	-	101	6	.6	16.5	.5	1.0	10.9	94.8	595.5	669.3	21.0	.4
131	Crude petroleum and natural gas	E1	46	2	.2	5.8	.1	.2	2.6	50.8	11.6	48.4	14.0	(NA)
132	Natural gas liquids	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	E3	51	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Shawnee County	E9	16	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1
	Sheridan County	-	30	-	(Z)	.5	(Z)	(Z)	.4	5.8	2.1	7.0	.8	(NA)
13	Oil and gas extraction	-	30	-	(Z)	.5	(Z)	(Z)	.4	5.8	2.1	7.0	.8	(NA)
131	Crude petroleum and natural gas	-	19	-	(Z)	.2	(Z)	(Z)	.2	5.0	1.6	5.9	.7	(NA)
	Stafford County	-	106	2	.2	5.6	.2	.4	4.1	48.1	17.0	57.7	7.4	.1
13	Oil and gas extraction	-	106	2	.2	5.6	.2	.4	4.1	48.1	17.0	57.7	7.4	.1
131	Crude petroleum and natural gas	-	55	1	.1	2.5	.1	.1	1.3	40.5	11.9	46.4	6.1	(Z)
138	Oil and gas field services	E1	51	1	.1	3.2	.1	.3	2.8	7.6	5.1	11.3	1.4	(NA)
	Stanton County	-	14	-	(Z)	.6	(Z)	(Z)	.4	14.7	2.9	16.7	.8	(Z)
13	Oil and gas extraction	-	14	-	(Z)	.6	(Z)	(Z)	.4	14.7	2.9	16.7	.8	(Z)
131	Crude petroleum and natural gas	-	8	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)
	Stevens County	-	40	2	.2	4.2	.1	.3	3.0	86.7	22.6	92.4	16.9	.1
13	Oil and gas extraction	-	40	2	.2	4.2	.1	.3	3.0	86.7	22.6	92.4	16.9	.1
131	Crude petroleum and natural gas	-	16	-	(Z)	1.0	(Z)	.1	.9	78.3	(D)	78.9	(D)	(Z)
138	Oil and gas field services	-	23	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Sumner County	-	87	3	.3	5.9	.2	.4	4.1	58.5	18.8	73.3	4.1	.1
13	Oil and gas extraction	-	86	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	-	47	2	.1	3.6	.1	.2	2.1	52.7	16.0	65.4	3.4	(Z)
138	Oil and gas field services	-	39	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Thomas County	-	17	-	(Z)	1.0	(Z)	.1	.7	4.8	3.6	6.8	1.5	(NA)
13	Oil and gas extraction	-	17	-	(Z)	1.0	(Z)	.1	.7	4.8	3.6	6.8	1.5	(NA)
	Trego County	-	67	2	.2	3.2	.2	.3	2.4	26.6	12.9	33.8	5.7	.1
13	Oil and gas extraction	-	67	2	.2	3.2	.2	.3	2.4	26.6	12.9	33.8	5.7	.1
131	Crude petroleum and natural gas	-	34	-	(Z)	.4	(Z)	(Z)	.3	16.0	7.5	20.9	2.6	(NA)
138	Oil and gas field services	-	33	2	.2	2.8	.1	.3	2.1	10.6	5.4	12.9	3.1	(NA)
	Wilson County	E5	32	-	.1	1.5	.1	.1	1.0	9.5	3.8	12.2	1.1	(NA)
13	Oil and gas extraction	E5	31	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E5	15	-	.1	.9	(Z)	.1	.5	7.7	2.9	9.7	.8	(NA)
	Woodson County	E6	45	1	.2	2.7	.1	.3	2.3	22.7	8.9	27.5	4.1	(NA)
13	Oil and gas extraction	E6	45	1	.2	2.7	.1	.3	2.3	22.7	8.9	27.5	4.1	(NA)
131	Crude petroleum and natural gas	E6	20	1	.1	1.5	.1	.1	1.3	18.8	6.8	22.6	3.1	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Kansas	4 451	5	-	15	4 320	111	Kansas—Con.							
0 to 4 employees	3 550	4	-	2	3 499	45	Doniphan County	1	-	-	-	-	-	1
5 to 9 employees	411	-	-	2	389	20	0 to 19 employees	1	-	-	-	-	-	1
10 to 19 employees	258	1	-	3	237	27	Douglas County	10	-	-	-	-	-	2
20 to 49 employees	177	-	-	6	154	17	0 to 19 employees	10	-	-	-	-	-	8
50 to 99 employees	33	-	-	1	30	2	Edwards County	61	-	-	-	-	-	-
100 to 249 employees	10	-	-	1	9	-	0 to 19 employees	61	-	-	-	-	-	61
250 to 499 employees	1	-	-	-	1	-	Elk County	30	-	-	-	-	-	28
500 to 999 employees	1	-	-	-	1	-	0 to 19 employees	30	-	-	-	-	-	28
Allen County	58	-	-	-	57	1	0 to 19 employees	61	-	-	-	-	-	61
0 to 19 employees	56	-	-	-	55	1	Elk County	30	-	-	-	-	-	28
20 to 99 employees	2	-	-	-	2	-	0 to 19 employees	30	-	-	-	-	-	2
Anderson County	18	-	-	-	18	-	Ellis County	163	-	-	-	-	-	162
0 to 19 employees	18	-	-	-	18	-	0 to 19 employees	151	-	-	-	-	-	1
Atchison County	5	-	-	-	4	1	0 to 19 employees	12	-	-	-	-	-	150
0 to 19 employees	5	-	-	-	4	1	Ellsworth County	64	-	-	-	-	-	12
Barber County	122	-	-	-	121	1	0 to 19 employees	63	-	-	-	-	-	63
0 to 19 employees	114	-	-	-	113	1	20 to 99 employees	1	-	-	-	-	-	1
20 to 99 employees	8	-	-	-	8	-	Flinney County	62	-	-	-	-	-	61
Barton County	221	-	-	1	218	2	0 to 19 employees	60	-	-	-	-	-	63
0 to 19 employees	198	-	-	-	196	2	20 to 99 employees	2	-	-	-	-	-	1
20 to 99 employees	22	-	-	1	21	-	Ford County	45	-	-	-	-	-	42
100 to 249 employees	1	-	-	-	1	-	0 to 19 employees	45	-	-	-	-	-	3
Bourbon County	18	-	-	2	14	2	20 to 99 employees	44	-	-	-	-	-	41
0 to 19 employees	15	-	-	2	14	1	Franklin County	27	-	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	1	0 to 19 employees	24	-	-	-	-	-	3
Brown County	1	-	-	-	1	-	20 to 99 employees	3	-	-	-	-	-	2
0 to 19 employees	1	-	-	-	1	-	Geary County	5	-	-	-	-	-	3
Butler County	105	-	-	-	103	2	0 to 19 employees	5	-	-	-	-	-	2
0 to 19 employees	97	-	-	-	96	1	Gove County	42	-	-	-	-	-	42
20 to 99 employees	8	-	-	-	7	1	0 to 19 employees	40	-	-	-	-	-	40
Chase County	11	-	-	-	11	-	20 to 99 employees	2	-	-	-	-	-	2
0 to 19 employees	10	-	-	-	10	-	Graham County	86	-	-	-	-	-	86
20 to 99 employees	1	-	-	-	1	-	0 to 19 employees	81	-	-	-	-	-	81
Chautauqua County	46	-	-	-	45	1	20 to 99 employees	5	-	-	-	-	-	5
0 to 19 employees	44	-	-	-	44	-	Grant County	59	-	-	-	-	-	59
20 to 99 employees	2	-	-	-	1	1	0 to 19 employees	52	-	-	-	-	-	52
Cherokee County	5	-	-	-	1	4	20 to 99 employees	7	-	-	-	-	-	7
0 to 19 employees	5	-	-	-	1	4	Gray County	18	-	-	-	-	-	18
Cheyenne County	10	-	-	-	10	-	0 to 19 employees	18	-	-	-	-	-	18
0 to 19 employees	10	-	-	-	10	-	Greeley County	17	-	-	-	-	-	17
Clark County	62	-	-	-	62	-	0 to 19 employees	17	-	-	-	-	-	17
0 to 19 employees	62	-	-	-	62	-	Greenwood County	63	-	-	-	-	-	63
Clay County	4	-	-	-	4	-	0 to 19 employees	62	-	-	-	-	-	62
0 to 19 employees	4	-	-	-	4	-	20 to 99 employees	1	-	-	-	-	-	1
Cloud County	2	-	-	-	1	1	Hamilton County	21	-	-	-	-	-	21
0 to 19 employees	2	-	-	-	1	1	0 to 19 employees	21	-	-	-	-	-	21
Coffey County	15	-	-	-	15	-	Harper County	64	-	-	-	-	-	63
0 to 19 employees	15	-	-	-	15	-	0 to 19 employees	62	-	-	-	-	-	61
Comanche County	57	-	-	-	57	-	20 to 99 employees	2	-	-	-	-	-	2
0 to 19 employees	57	-	-	-	57	-	Harvey County	36	-	-	-	-	-	35
Cowley County	82	-	-	-	78	4	0 to 19 employees	36	-	-	-	-	-	35
0 to 19 employees	77	-	-	-	73	4	Haskell County	38	-	-	-	-	-	35
20 to 99 employees	5	-	-	-	5	-	0 to 19 employees	38	-	-	-	-	-	37
Crawford County	16	1	-	5	9	1	Hodgeman County	56	-	-	-	-	-	56
0 to 19 employees	10	1	-	2	7	-	0 to 19 employees	56	-	-	-	-	-	56
20 to 99 employees	5	-	-	2	2	1	Jackson County	6	-	-	-	-	-	6
100 to 249 employees	1	-	-	1	-	-	0 to 19 employees	6	-	-	-	-	-	6
Decatur County	37	-	-	-	37	-	Jefferson County	7	-	-	-	-	-	4
0 to 19 employees	35	-	-	-	35	-	0 to 19 employees	6	-	-	-	-	-	3
20 to 99 employees	2	-	-	-	2	-	20 to 99 employees	1	-	-	-	-	-	1
Dickinson County	16	1	-	-	11	4	Johnson County	39	-	-	2	32	5	
0 to 19 employees	16	1	-	-	11	4	0 to 19 employees	36	-	-	2	31	3	
							20 to 99 employees	3	-	-	2	1	2	

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-trac-tion (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-trac-tion (SIC 13)	Non-metallic minerals mining (SIC 14)
Kansas—Con.							Kansas—Con.						
Kearny County -----	30	-	-	-	30	-	Osborne County -----	18	-	-	-	-	18
0 to 19 employees-----	30	-	-	-	30	-	0 to 19 employees-----	17	-	-	-	-	17
Kingman County -----	97	-	-	-	97	-	20 to 99 employees -----	1	-	-	-	-	1
0 to 19 employees-----	95	-	-	-	95	-	Pawnee County -----	70	-	-	-	-	68
20 to 99 employees -----	2	-	-	-	2	-	0 to 19 employees-----	69	-	-	-	-	2
Kiowa County -----	57	-	-	-	57	-	20 to 99 employees -----	1	-	-	-	-	1
0 to 19 employees-----	57	-	-	-	57	-	Phillips County -----	27	-	-	-	-	27
20 to 99 employees -----	14	-	-	3	10	1	0 to 19 employees-----	25	-	-	-	-	25
0 to 19 employees-----	11	-	-	-	10	-	20 to 99 employees -----	1	-	-	-	-	1
20 to 99 employees -----	3	-	-	2	-	1	250 employees or more -----	1	-	-	-	-	1
Lane County -----	42	-	-	-	42	-	Pottawatomie County -----	1	-	-	-	-	1
0 to 19 employees-----	40	-	-	-	40	-	0 to 19 employees-----	1	-	-	-	-	1
20 to 99 employees -----	2	-	-	-	2	-	Pratt County -----	110	-	-	-	-	109
Leavenworth County -----	5	-	-	-	3	2	0 to 19 employees-----	105	-	-	-	-	1
0 to 19 employees-----	5	-	-	-	3	2	20 to 99 employees -----	5	-	-	-	-	5
Lincoln County -----	1	-	-	-	-	1	Rawlins County -----	24	-	-	-	-	24
20 to 99 employees -----	1	-	-	-	-	1	0 to 19 employees-----	24	-	-	-	-	24
Linn County -----	15	-	-	-	10	5	Reno County -----	74	-	-	-	-	70
0 to 19 employees-----	15	-	-	-	10	5	0 to 19 employees-----	72	-	-	-	-	69
Logan County -----	28	-	-	-	28	-	20 to 99 employees -----	2	-	-	-	-	1
0 to 19 employees-----	25	-	-	-	25	-	Rice County -----	96	-	-	-	-	94
20 to 99 employees -----	3	-	-	-	3	-	0 to 19 employees-----	92	-	-	-	-	2
Lyon County -----	13	-	-	-	13	-	20 to 99 employees -----	3	-	-	-	-	3
0 to 19 employees-----	13	-	-	-	13	-	100 to 249 employees -----	1	-	-	-	-	1
McPherson County -----	79	-	-	-	78	1	Riley County -----	8	1	-	-	-	6
0 to 19 employees-----	75	-	-	-	75	-	0 to 19 employees-----	8	1	-	-	-	1
20 to 99 employees -----	4	-	-	-	3	1	Rooks County -----	114	-	-	-	-	114
Marion County -----	41	-	-	-	38	3	0 to 19 employees-----	106	-	-	-	-	106
0 to 19 employees-----	39	-	-	-	36	3	20 to 99 employees -----	8	-	-	-	-	8
20 to 99 employees -----	2	-	-	-	2	-	Rush County -----	55	-	-	-	-	55
Marshall County -----	2	-	-	-	2	-	0 to 19 employees-----	54	-	-	-	-	54
0 to 19 employees-----	1	-	-	-	1	-	20 to 99 employees -----	1	-	-	-	-	1
Meade County -----	60	-	-	-	60	-	Russell County -----	133	-	-	-	-	133
0 to 19 employees-----	60	-	-	-	60	-	0 to 19 employees-----	125	-	-	-	-	125
Miami County -----	34	-	-	-	33	1	20 to 99 employees -----	8	-	-	-	-	8
0 to 19 employees-----	32	-	-	-	31	1	Saline County -----	22	-	-	-	-	22
20 to 99 employees -----	2	-	-	-	2	-	0 to 19 employees-----	22	-	-	-	-	22
Montgomery County -----	70	1	-	-	68	1	Scott County -----	24	-	-	-	-	24
0 to 19 employees-----	66	1	-	-	64	1	0 to 19 employees-----	24	1	-	-	-	24
20 to 99 employees -----	3	-	-	-	3	1	20 to 99 employees -----	32	-	-	-	-	31
100 to 249 employees -----	1	-	-	-	1	1	100 to 249 employees -----	4	-	-	-	-	4
Morris County -----	19	-	-	-	19	-	250 employees or more -----	1	-	-	-	-	1
0 to 19 employees-----	19	-	-	-	19	-	Seward County -----	101	-	-	-	-	101
Morton County -----	58	-	-	-	58	-	0 to 19 employees-----	95	-	-	-	-	95
0 to 19 employees-----	56	-	-	-	56	-	20 to 99 employees -----	6	-	-	-	-	6
20 to 99 employees -----	2	-	-	-	2	-	Shawnee County -----	16	-	-	-	-	8
Nemaha County -----	7	-	-	-	7	-	0 to 19 employees-----	16	-	-	-	-	7
0 to 19 employees-----	7	-	-	-	7	-	Sheridan County -----	30	-	-	-	-	30
Neosho County -----	61	-	-	-	59	2	0 to 19 employees-----	30	-	-	-	-	30
0 to 19 employees-----	56	-	-	-	55	1	Sherman County -----	11	-	-	-	-	11
20 to 99 employees -----	3	-	-	-	2	1	0 to 19 employees-----	11	-	-	-	-	11
100 to 249 employees -----	2	-	-	-	2	-	0 to 19 employees-----	1	-	-	-	-	1
Ness County -----	102	-	-	-	101	1	Smith County -----	1	-	-	-	-	1
0 to 19 employees-----	99	-	-	-	99	-	0 to 19 employees-----	1	-	-	-	-	1
20 to 99 employees -----	3	-	-	-	2	1	20 to 99 employees -----	2	-	-	-	-	2
Norton County -----	22	-	-	-	22	-	Stafford County -----	106	-	-	-	-	106
0 to 19 employees-----	22	-	-	-	22	-	0 to 19 employees-----	104	-	-	-	-	104
Osage County -----	1	-	-	-	1	-	20 to 99 employees -----	2	-	-	-	-	2
0 to 19 employees-----	1	-	-	-	1	-	Stanton County -----	14	-	-	-	-	14
						-	0 to 19 employees-----	14	-	-	-	-	14

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Kansas—Con.							Kansas—Con.							
Stevens County -----	40	-	-	-	40	-	Wallace County -----	9	-	-	-	-	9	-
0 to 19 employees-----	38	-	-	-	38	-	0 to 19 employees-----	8	-	-	-	-	8	-
20 to 99 employees -----	2	-	-	-	2	-	20 to 99 employees -----	1	-	-	-	-	1	-
Sumner County -----	87	-	-	-	86	1	Washington County -----	5	-	-	-	-	2	3
0 to 19 employees-----	84	-	-	-	83	1	0 to 19 employees-----	5	-	-	-	-	2	3
20 to 99 employees -----	3	-	-	-	3	-	Wichita County -----	10	-	-	-	-	10	-
Thomas County -----	17	-	-	-	17	-	0 to 19 employees-----	9	-	-	-	-	9	-
0 to 19 employees-----	17	-	-	-	17	-	20 to 99 employees -----	1	-	-	-	-	1	-
Trego County -----	67	-	-	-	67	-	Wilson County -----	32	-	-	-	-	31	1
0 to 19 employees-----	65	-	-	-	65	-	0 to 19 employees-----	32	-	-	-	-	31	1
20 to 99 employees -----	2	-	-	-	2	-	Woodson County -----	45	-	-	-	-	45	-
Wabaunsee County -----	10	-	-	-	10	-	0 to 19 employees-----	44	-	-	-	-	44	-
0 to 19 employees-----	10	-	-	-	10	-	20 to 99 employees -----	1	-	-	-	-	1	-
Wyendotte County -----							Wyendotte County -----	7	-	-	-	-	2	5
							0 to 19 employees-----	6	-	-	-	-	2	4
							20 to 99 employees -----	1	-	-	-	-	-	-



Minnesota

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	3
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	6

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	6
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	7
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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 170 establishments classified in mineral industries in Minnesota amounted to \$1,049 million in 1982, compared to \$928 million in 1977. Value added by mining amounted to \$599 million in 1982, and payroll in mining amounted to \$248 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Minnesota was 9.2 thousand in 1982, a decrease of 20 percent from 1977. Metal mining led all other mineral industries in the State, accounting for 84 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	170	35	9.2	247.9	5.9	10.1	154.1	598.8	503.8	1 049.3	53.3
1977 ¹	179	46	11.5	213.4	8.3	16.2	144.8	699.2	513.8	928.4	284.5
1972 ¹	191	44	11.7	128.9	9.2	17.9	92.4	498.2	250.7	712.8	36.1
1967 ¹	226	65	12.9	98.7	10.1	19.8	70.7	415.0	251.5	584.4	82.1
1963	334	67	13.2	91.0	9.9	18.9	59.5	367.7	159.6	502.1	25.2
1958	289	89	17.2	97.1	11.7	22.3	59.5	311.7	124.1	420.7	15.3

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees ² (1,000)	Value added by mining (million dollars)	
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
10	All mineral industries ----	-	170	35	9.2	247.9	5.9	10.1	154.1	598.8	503.8	1 049.3	53.3	11.5	699.2
1011	Metal mining-----	-	36	16	7.7	216.1	5.0	8.3	137.9	521.3	464.2	944.8	40.7	10.1	654.2
1011	Iron ores-----	-	21	15	7.6	213.4	4.9	8.1	135.9	515.8	461.8	937.6	39.9	FF	(D)
13	Oil and gas extraction -----	E8	35	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA	(D)
1311	Crude petroleum and natural gas-----	E9	15	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services-----	E7	20	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels-----	E3	94	16	1.2	23.0	.8	1.5	14.0	57.2	30.1	77.0	10.3	1.2	40.1
142	Crushed and broken stone, including riprap-----	E2	25	7	.3	7.0	.3	.5	4.6	15.7	10.2	23.4	2.5	.4	11.3
1422	Crushed and broken limestone-----	E2	13	5	.2	5.1	.2	.3	3.0	9.7	6.0	14.6	1.1	.3	7.1
144	Sand and gravel-----	E3	59	7	.7	13.2	.4	.9	8.1	37.8	17.7	48.3	7.2	.7	26.0
1442	Construction sand and gravel-----	E4	56	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	CC	(D)	

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers			Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)			
Nonmetallic mineral mines included in manufactures-----	8	.3	2.5	2.4	(X)	(D)
Dimension stone-----	3	(D)	(D)	(D)		

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- ducing estab- lishments	
			Total	Mines only			Mines with preparation plants				Separately operated preparation plants	Undistrib- uted ¹		
				Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods			
	ALL MINERAL INDUSTRIES													
	Establishments-----number--	170	162	23	3	10	10	60	60	60	-	1	78	
	Employees -----1,000--	9.2	(D)	.8	(D)	(D)	(D)	6.5	-	6.5	(D)	(D)	(D)	
	Value added in mining ----- mil. dol.--	598.8		35.7				524.3		524.3			8	
10	METAL MINING													
	Establishments-----number--	36	33	1	-	1	-	10	-	10	-	1	21	
	Employees -----1,000--	7.7	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	
	Value added in mining ----- mil. dol.--	521.3										5.8	3	
101	Iron ores													
	Establishments-----number--	21	19	1	-	1	-	10	-	10	-	1	7	
	Employees -----1,000--	7.6	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	
	Value added in mining ----- mil. dol.--	515.8										.1	2	
104	Gold and silver ores													
	Establishments-----number--	3	3	-	-	-	-	-	-	-	-	-	3	
	Employees -----1,000--	(D)	(D)	-	-	-	-	-	-	-	-	-	-	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	-	-	-	-	-	-	-	
108	Metal mining services													
	Establishments-----number--	7	7	-	-	-	-	-	-	-	-	-	7	
	Employees -----1,000--	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	-	-	-	-	-	-	-	
109	Miscellaneous metal ores													
	Establishments-----number--	5	4	-	-	-	-	-	-	-	-	-	4	
	Employees -----1,000--	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	-	-	-	-	-	-	1	
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments-----number--	5	4	3	3	-	-	-	-	-	-	-	1	
	Employees -----1,000--	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	-	-	-	-	-	-	-	
121	Bituminous coal and lignite mining													
	Establishments-----number--	5	4	3	3	-	-	-	-	-	-	-	1	
	Employees -----1,000--	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	-	-	-	-	-	-	-	
13	OIL AND GAS EXTRACTION													
	Establishments-----number--	35	35	10	-	-	10	-	-	-	-	-	25	
	Employees -----1,000--	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	(D)	-	-	-	-	-	-	
131	Crude petroleum and natural gas													
	Establishments-----number--	15	15	10	-	-	10	-	-	-	-	-	5	
	Employees -----1,000--	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.--	(D)		-	-	-	(D)	-	-	-	-	-	-	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonproducing establish- ments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistri- buted ¹		
			Total	Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods			
13	OIL AND GAS EXTRACTION—Con.													
138	Oil and gas field services													
	Establishments..... number.....	20	20	—	—	—	—	—	—	—	—	—	20	
	Employees..... 1,000.....	(D)	(D)	—	—	—	—	—	—	—	—	—	(D)	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments..... number.....	94	90	9	—	9	—	50	—	50	—	—	31	
	Employees..... 1,000.....	1.2	1.1	(D)	(D)	(D)	—	(D)	—	(D)	—	—	.4	
	Value added in mining..... mil. dol.	57.2	57.2	—	—	—	—	—	—	—	—	—	(Z)	
141	Dimension stone													
	Establishments..... number.....	4	4	4	—	4	—	—	—	—	—	—	—	
	Employees..... 1,000.....	(D)	(D)	(D)	—	(D)	—	(D)	—	(D)	—	—	—	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	
142	Crushed and broken stone, including riprap													
	Establishments..... number.....	25	25	—	—	—	—	25	—	25	—	—	—	
	Employees..... 1,000.....	.3	.3	—	—	—	—	.3	—	.3	—	—	—	
	Value added in mining..... mil. dol.	15.7	15.7	—	—	—	—	15.7	—	15.7	—	—	—	
144	Sand and gravel													
	Establishments..... number.....	59	55	3	—	3	—	24	—	24	—	—	28	
	Employees..... 1,000.....	.7	.6	(D)	(D)	(D)	—	(D)	—	(D)	—	—	(D)	
	Value added in mining..... mil. dol.	37.8	37.8	—	—	—	—	—	—	—	—	—	(Z)	
145	Clay, ceramic, and refractory minerals													
	Establishments..... number.....	2	2	2	—	2	—	—	—	—	—	—	—	
	Employees..... 1,000.....	(D)	(D)	(D)	—	(D)	—	(D)	—	(D)	—	—	—	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	
147	Chemical and fertilizer mineral mining													
	Establishments..... number.....	2	2	—	—	—	—	—	—	—	—	—	2	
	Employees..... 1,000.....	(D)	(D)	—	—	—	—	—	—	—	—	—	(D)	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	
148	Nonmetallic minerals services													
	Establishments..... number.....	1	1	—	—	—	—	—	—	—	—	—	1	
	Employees..... 1,000.....	(D)	(D)	—	—	—	—	—	—	—	—	—	(D)	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	
149	Miscellaneous nonmetallic minerals													
	Establishments..... number.....	1	1	—	—	—	—	1	—	1	—	—	—	
	Employees..... 1,000.....	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—	(D)	
	Value added in mining..... mil. dol.			—	—	—	—	—	—	—	—	—	—	

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year ----- number	170	Cost of supplies ----- mil. dol.	503.8
With 0 to 19 employees ----- do	135	Supplies used, minerals received, and purchased machinery installed ----- do	246.2
With 20 to 99 employees ----- do	25	Resales ----- do	.5
With 100 employees or more ----- do	10	Purchased fuels consumed ----- do	81.6
All employees:		Purchased electric energy:	
Average for year ----- 1,000	9.2	Quantity ----- mil. kWh	2 538.1
Payroll for year ----- mil. dol.	247.9	Cost ----- mil. dol.	163.9
Production, development, and exploration workers:		Electric energy generated less sold ----- mil. kWh	(D)
Average for year ----- 1,000	5.9	Contract work ----- mil. dol.	11.6
March ----- do	8.9	Cost of purchased communication services ----- do	1.4
May ----- do	7.7	Value of shipments and receipts ----- do	1 049.3
August ----- do	3.8	Value of resales ----- do	.6
November ----- do	3.3	Capital expenditures during year (except land and mineral rights) ----- do	53.3
Hours ----- millions	10.1	New capital expenditures during year ----- do	50.3
January to March ----- do	4.0	Buildings and other structures, except land ----- do	16.4
April to June ----- do	3.3	Machinery and equipment ----- do	33.9
July to September ----- do	1.3	Used capital expenditures during year ----- do	1.7
October to December ----- do	1.5	Buildings and other structures, except land ----- do	.1
Wages ----- mil. dol.	154.1	Machinery and equipment ----- do	1.6
Supplemental labor costs not included in payroll ----- do	97.7	Mineral exploration and development ¹ ----- do	1.2
Legally required expenditures, including Social Security contributions ----- do	27.1	Rental payments during year ----- do	5.6
Payments for voluntary programs ----- do	70.6	Buildings and other structures, except land ----- do	.1
Value added by mining ----- do	598.8	Machinery and equipment ----- do	5.6
		Expensed mineral exploration, development, land, and rights ² ----- do	55.6

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total inventories ¹ -----	203.0	229.4
Detail by method of valuation:		
Subject to LIFO costing ² -----	12.6	9.2
LIFO reserve -----	.6	.7
LIFO value -----	12.0	8.5
Not subject to LIFO costing -----	170.8	203.5
Valuation method not reported ³ -----	(D)	(D)
Amount subject to LIFO reported without associated reserve and value ⁴ -----	(D)	(D)

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982									1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)				
	Minnesota -----	-	170	35	9.2	247.9	5.9	10.1	154.1	598.8	1 049.3	53.3
	Clay County -----	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	11.5
14	Nonmetallic minerals, except fuels -----	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
144	Sand and gravel -----	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Dakota County -----	E8	8	1	.2	2.4	.1	.3	2.0	11.9	6.2	16.2
13	Oil and gas extraction -----	E9	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services -----	E9	2	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
14	Nonmetallic minerals, except fuels -----	E7	5	1	.2	1.8	.1	.3	1.5	5.9	(D)	8.3
144	Sand and gravel -----	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982											1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)		
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)								
	Minnesota—Con.															
	Hennepin County	E9	34	5	.4	11.7	.2	.3	3.4	17.9	8.1	24.1	1.8	.3	14.4	
14	Nonmetallic minerals, except fuels	E9	11	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	10.5	
144	Sand and gravel	E9	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.0	
	Itasca County	-	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	87.8	
10	Metal mining	-	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	87.8	
101	Iron ores	-	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
	Lake County	-	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
10	Metal mining	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
101	Iron ores	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
	Le Sueur County	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	St. Louis County	-	28	10	6.0	165.4	3.9	6.7	106.1	468.0	340.8	770.4	38.4	7.6	511.8	
10	Metal mining	-	22	10	5.9	164.8	3.9	6.7	105.7	466.4	(D)	768.3	(D)	7.6	510.7	
101	Iron ores	-	16	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Nonmetallic minerals mining (SIC 14)	
Minnesota	170	36	-	5	35	94	Minnesota—Con.							
0 to 4 employees	75	12	-	5	21	37	Blue Earth County—Con.							
5 to 9 employees	33	6	-	-	7	20	20 to 99 employees	1	-	-	-	-	-	1
10 to 19 employees	27	2	-	-	4	21	Brown County	2	-	-	-	-	-	2
20 to 49 employees	20	6	-	-	2	12	0 to 19 employees	2	-	-	-	-	-	2
50 to 99 employees	5	1	-	-	1	3	Carlton County	2	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1	0 to 19 employees	1	1	-	-	-	-	1
250 to 499 employees	3	3	-	-	-	-	20 to 99 employees	1	-	-	-	-	-	1
500 to 999 employees	3	3	-	-	-	-	Chippewa County	2	-	-	-	-	-	2
1,000 to 2,499 employees	3	3	-	-	-	-	0 to 19 employees	2	-	-	-	-	-	2
Altnik County	1	-	-	-	1	-	20 to 99 employees	1	-	-	-	-	-	1
0 to 19 employees	1	-	-	-	1	-	Carlton County	2	1	-	-	-	-	1
Anoka County	2	-	-	-	1	1	0 to 19 employees	1	1	-	-	-	-	1
0 to 19 employees	2	-	-	-	1	1	Chisago County	2	-	-	-	-	-	1
Becker County	1	-	-	-	-	1	0 to 19 employees	2	-	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	Clay County	3	-	-	-	-	-	3
Big Stone County	2	-	-	-	-	2	0 to 19 employees	1	-	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	20 to 99 employees	2	-	-	-	-	-	2
Blue Earth County	2	-	-	-	-	2	Cook County	1	-	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	-	1

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Minnesota—Con.							Minnesota—Con.							
Cottonwood County	1	—	—	—	—	1	Murray County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
Crow Wing County	2	—	—	—	—	2	Nicollet County	2	—	—	—	—	—	2
0 to 19 employees	2	—	—	—	—	2	0 to 19 employees	2	—	—	—	—	—	2
Dakota County	8	—	—	1	2	5	Olmsted County	3	—	—	—	—	—	3
0 to 19 employees	7	—	—	1	2	4	0 to 19 employees	2	—	—	—	—	—	2
100 to 249 employees	1	—	—	—	—	1	20 to 99 employees	1	—	—	—	—	—	1
Dodge County	1	—	—	—	—	1	Otter Tail County	2	—	—	—	—	—	2
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	2	—	—	—	—	—	2
Douglas County	1	—	—	—	—	1	Pine County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
Fillmore County	1	—	—	—	—	1	Pipestone County	1	—	—	—	—	—	1
20 to 99 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
Freeborn County	2	—	—	—	—	2	Polk County	1	—	—	—	—	—	1
0 to 19 employees	2	—	—	—	—	2	0 to 19 employees	1	—	—	—	—	—	1
Goodhue County	4	—	—	—	2	2	Ramsey County	7	—	—	—	—	4	3
0 to 19 employees	3	—	—	—	2	1	0 to 19 employees	5	—	—	—	3	2	2
20 to 99 employees	1	—	—	—	—	1	20 to 99 employees	2	—	—	—	1	—	1
Grant County	1	—	—	—	1	—	Renville County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	1	—	0 to 19 employees	1	—	—	—	—	—	1
Hennepin County	34	6	—	3	14	11	Rice County	1	—	—	—	—	1	—
0 to 19 employees	29	5	—	3	12	9	0 to 19 employees	1	—	—	—	1	—	1
20 to 99 employees	5	1	—	—	2	2	Rock County	1	—	—	—	—	—	1
Houston County	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	St. Louis County	28	22	—	1	1	4	4
Hubbard County	1	—	—	—	—	1	0 to 19 employees	18	12	—	1	1	4	4
20 to 99 employees	1	—	—	—	—	1	20 to 99 employees	4	4	—	—	—	—	—
Itasca County	6	5	—	—	—	1	250 employees or more	6	6	—	—	—	—	—
0 to 19 employees	2	1	—	—	—	1	Scott County	4	—	—	—	—	—	4
20 to 99 employees	2	2	—	—	—	—	0 to 19 employees	4	—	—	—	—	—	4
250 employees or more	2	2	—	—	—	—	Stearns County	3	—	—	—	—	—	3
Kanabec County	1	—	—	—	1	—	0 to 19 employees	2	—	—	—	—	—	2
0 to 19 employees	1	—	—	—	1	—	20 to 99 employees	1	—	—	—	—	—	1
Koochiching County	1	1	—	—	—	—	Steele County	1	—	—	—	—	—	1
0 to 19 employees	1	1	—	—	—	—	0 to 19 employees	1	—	—	—	—	—	1
Lake County	2	1	—	—	—	1	Stevens County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
250 employees or more	1	1	—	—	—	1	Swift County	2	—	—	—	—	2	—
Le Sueur County	2	—	—	—	—	2	0 to 19 employees	2	—	—	—	—	2	—
0 to 19 employees	1	—	—	—	—	1	Todd County	2	—	—	—	—	—	2
20 to 99 employees	1	—	—	—	—	1	0 to 19 employees	2	—	—	—	—	—	2
Lyon County	1	—	—	—	—	1	Wabasha County	2	—	—	—	—	—	2
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	2	—	—	—	—	—	2
Meeker County	1	—	—	—	—	1	Washington County	4	—	—	—	—	—	4
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	4	—	—	—	—	—	4
Mille Lacs County	1	—	—	—	—	1	Watonwan County	1	—	—	—	—	—	1
0 to 19 employees	1	—	—	—	—	1	0 to 19 employees	1	—	—	—	—	—	1
Morrison County	3	—	—	—	—	3	Winona County	3	—	—	—	—	1	2
0 to 19 employees	3	—	—	—	—	3	0 to 19 employees	3	—	—	—	1	2	2
Mower County	1	—	—	—	—	1	Yellow Medicine County	2	—	—	—	—	—	2
20 to 99 employees	1	—	—	—	—	1	0 to 19 employees	2	—	—	—	—	—	2

Missouri

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	7

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	7
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	9
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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 394 establishments classified in mineral industries in Missouri amounted to \$604 million in 1982, compared to \$503 million in 1977. Value added by mining amounted to \$418 million in 1982, and payroll in mining amounted to \$198 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Missouri was 7.9 thousand in 1982, a decrease of 2 percent from 1977. It accounted for 1 percent of the Nation's total. Nonmetallic minerals, except fuels led all other mineral industries in the State, accounting for 35 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2
1977	378	69	8.1	127.1	5.6	11.1	81.1	396.2	142.8	503.0	36.0
1972	360	79	8.9	87.2	5.8	11.8	54.7	217.9	86.2	266.8	37.3
1967	381	76	8.9	60.0	6.0	12.3	38.3	103.6	82.1	144.2	41.6
1963	425	66	7.7	38.2	5.8	11.3	27.1	66.3	51.8	95.6	22.5
1958	435	69	8.5	37.9	6.8	12.1	26.2	66.4	34.1	87.1	13.4
Excluding oil and gas extraction industries:											
1982	323	63	7.6	191.9	5.0	9.9	115.8	395.2	257.3	574.5	78.0
1977	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1972	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1967	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1963	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982									1977				
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)			
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
	All mineral Industries ----	E1	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2	8.1	396.2
10	Metal mining-----	-	24	13	2.6	72.5	1.6	3.2	44.6	169.4	110.7	239.1	41.0	3.4	245.3
1011	Iron ores-----	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
1031	Lead and zinc ores -----	-	13	10	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
12	Bituminous coal and lignite mining -----	-	34	13	2.2	70.7	1.2	2.4	34.4	118.9	77.3	175.3	21.0	1.6	46.5
121	Bituminous coal and lignite mining -----	-	34	13	2.2	70.7	1.2	2.4	34.4	118.9	77.3	175.3	21.0	1.6	46.5
1211	Bituminous coal and lignite -----	-	30	12	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE	(D)
13	Oil and gas extraction -----	E7	71	2	.3	6.2	.2	.4	4.0	23.1	8.9	29.9	2.2	.1	8.1
1311	Crude petroleum and natural gas-----	E8	36	1	.1	2.4	.1	.2	1.5	13.7	6.6	19.8	.5	(NA)	(NA)
138	Oil and gas field services -----	E4	35	1	.1	3.7	.1	.3	2.5	9.4	2.3	10.0	1.6	.1	2.2
14	Nonmetallic minerals, except fuels -----	E1	265	37	2.8	48.7	2.2	4.2	36.7	106.8	69.3	160.2	16.0	2.9	96.3
142	Crushed and broken stone, including riprap -----	E1	156	25	1.9	32.1	1.5	2.8	24.5	67.5	40.5	98.8	9.2	1.8	64.3
1422	Crushed and broken limestone -----	E2	150	25	1.8	31.5	1.5	2.7	24.0	66.4	40.0	97.5	8.9	1.8	61.1
144	Sand and gravel -----	E3	60	4	.4	7.4	.3	.6	5.7	17.5	10.4	24.2	3.8	.5	16.8
1442	Construction sand and gravel -----	E4	54	2	.3	5.2	.2	.4	4.1	11.4	(D)	14.9	(D)	BB	(D)
1446	Industrial sand -----	-	6	2	.1	2.2	.1	.2	1.6	6.1	(D)	9.3	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals -----	-	14	3	.2	4.0	.2	.3	2.6	10.4	10.2	19.5	1.0	.2	4.4
1455	Kaolin and ball clay -----	-	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining -----	-	11	4	.2	3.2	.2	.3	2.4	6.8	6.3	12.0	1.1	.2	5.8
1472	Barite -----	-	10	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	5.8

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures -----	9	.5	4.4	6.6	(X)
Crushed and broken stone, including riprap -----	8	(D)	(D)	(D)	(D)
Crushed and broken limestone -----	8	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- ducing estab- lishments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistrib- uted ¹		
			Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods				
	ALL MINERAL INDUSTRIES													
	Establishments-----number-----	394	376	72	13	26	33	191	14	168	9	1	112	
	Employees -----1,000-----	7.9	7.8	.6	.1	.3	.1	5.4	2.1	3.1	.2	(D)	(D)	
	Value added in mining ----- mil. dol.-----	418.2	428.7	37.0	5.8	17.3	14.0	367.1	179.6	174.3	13.3	(D)	(D)	
10	METAL MINING													
	Establishments-----number-----	24	20	1	1	-	-	8	8	-	-	-	11	
	Employees -----1,000-----	2.6	(D)	(D)	(D)	-	-	2.0	2.0	-	-	-	(D)	
	Value added in mining ----- mil. dol.-----	169.4						176.5	176.5				4	
101	Iron ores													
	Establishments-----number-----	1	1	-	-	-	-	1	1	-	-	-	-	
	Employees -----1,000-----	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	
	Value added in mining ----- mil. dol.-----													
103	Lead and zinc ores													
	Establishments-----number-----	13	11	1	1	-	-	7	7	-	-	-	3	
	Employees -----1,000-----	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	
	Value added in mining ----- mil. dol.-----												2	
104	Gold and silver ores													
	Establishments-----number-----	1	-	-	-	-	-	-	-	-	-	-	1	
	Employees -----1,000-----	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.-----													
108	Metal mining services													
	Establishments-----number-----	7	7	-	-	-	-	-	-	-	-	-	7	
	Employees -----1,000-----	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining ----- mil. dol.-----												-	
109	Miscellaneous metal ores													
	Establishments-----number-----	2	1	-	-	-	-	-	-	-	-	-	1	
	Employees -----1,000-----	(D)	(D)	-	-	-	-	-	-	-	-	-	(Z)	
	Value added in mining ----- mil. dol.-----													

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonproducing estab- lishments	
			Mines only				Mines with preparation plants				Sep- arately operated prepara- tion plants	Undistrib- uted ¹		
			Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods				
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments..... number.....	34	30	13	12	1	-	7	-	7	-	-	10 (D)	
	Employees..... 1,000.....	2.2	2.2	(D)	(D)	(D)	-	1.0	-	1.0	-	-	(Z)	
	Value added in mining..... mil. dol.....	118.9	119.0	(D)	(D)	(D)	-	97.8	-	97.8	-	-	(D)	
121	Bituminous coal and lignite mining													
	Establishments..... number.....	34	30	13	12	1	-	7	-	7	-	-	10 (D)	
	Employees..... 1,000.....	2.2	2.2	(D)	(D)	(D)	-	1.0	-	1.0	-	-	(Z)	
	Value added in mining..... mil. dol.....	118.9	119.0	(D)	(D)	(D)	-	97.8	-	97.8	-	-	(D)	
13	OIL AND GAS EXTRACTION													
	Establishments..... number.....	71	66	29	-	-	29	-	-	-	-	-	37 (Z)	
	Employees..... 1,000.....	.3	.3	.1	-	-	.1	-	-	-	-	-	.2	
	Value added in mining..... mil. dol.....	23.1	23.1	13.7	-	-	13.7	-	-	-	-	-	9.4	
131	Crude petroleum and natural gas													
	Establishments..... number.....	36	31	29	-	-	29	-	-	-	-	-	2 (Z)	
	Employees..... 1,000.....	.1	.1	.1	-	-	.1	-	-	-	-	-	5 (Z)	
	Value added in mining..... mil. dol.....	13.7	13.7	13.7	-	-	13.7	-	-	-	-	-	-	
138	Oil and gas field services													
	Establishments..... number.....	35	35	-	-	-	-	-	-	-	-	-	35	
	Employees..... 1,000.....	.1	.1	-	-	-	-	-	-	-	-	-	.1	
	Value added in mining..... mil. dol.....	9.4	9.4	-	-	-	-	-	-	-	-	-	9.4	
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments..... number.....	265	260	29	-	25	4 (Z)	176	6	161	9	1 (D)	54 (D)	
	Employees..... 1,000.....	2.8	(D)	(D)	-	(D)	.3	2.3	.1	2.0	.2	(D)	.3	
	Value added in mining..... mil. dol.....	106.8	(D)	(D)	-	(D)	-	92.8	3.0	76.5	13.3	8.1	5 (D)	
141	Dimension stone													
	Establishments..... number.....	4	4	4	-	4 (Z)	-	-	-	-	-	-	-	
	Employees..... 1,000.....	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	
	Value added in mining..... mil. dol.....	.2	.2	.2	-	.2	-	-	-	-	-	-	-	
142	Crushed and broken stone, including riprap													
	Establishments..... number.....	156	154	4	-	3 (D)	1 (Z)	143	5 (D)	136	2 (D)	-	7 (D)	
	Employees..... 1,000.....	1.9	1.9	(D)	-	(D)	(Z)	(D)	(D)	1.6	(D)	-	.1 (Z)	
	Value added in mining..... mil. dol.....	67.5	67.5	(D)	-	(D)	-	-	-	55.1	(D)	-	2 (Z)	
144	Sand and gravel													
	Establishments..... number.....	60	59	6	-	3 (Z)	3 (Z)	18	1 (D)	10	7 (D)	-	35 (Z)	
	Employees..... 1,000.....	.4	.4	(Z)	-	(Z)	.3	.2	(D)	.1	(D)	-	.1 (Z)	
	Value added in mining..... mil. dol.....	17.5	17.5	1.0	-	.8	.3	10.7	(D)	6.0	(D)	-	5.8 (Z)	
145	Clay, ceramic, and refractory minerals													
	Establishments..... number.....	14	14	10	-	10 (D)	-	3 (D)	-	3 (D)	-	-	1 (Z)	
	Employees..... 1,000.....	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	
	Value added in mining..... mil. dol.....	10.4	10.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments									Nonpro- ducing estab- lishments
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistri- buted ¹
			Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods		
14	NONMETALLIC MINERALS, EXCEPT FUELS—Con.											
147	Chemical and fertilizer mineral mining											
	Establishments—number—	11	9	4	—	4	—	4	—	4	—	2
	Employees—1,000—	.2	(D)	(D)	—	(D)	—	(D)	—	(D)	—	(D)
	Value added in mining—mil. dol.—	6.8										
148	Nonmetallic minerals services											
	Establishments—number—	11	11	—	—	—	—	—	—	—	—	—
	Employees—1,000—	.1	.1	—	—	—	—	—	—	—	11	—
	Value added in mining—mil. dol.—	2.3	2.3	—	—	—	—	—	—	—	2.3	—
149	Miscellaneous nonmetallic minerals											
	Establishments—number—	9	9	1	—	1	—	8	—	8	—	—
	Employees—1,000—	(2)	2.1	(D)	—	(D)	—	(D)	—	(D)	—	—
	Value added in mining—mil. dol.—	2.1										

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year—number—		Cost of supplies—mil. dol.—	266.3
With 0 to 19 employees—do—	394	Supplies used, minerals received, and purchased machinery installed—do—	161.3
With 20 to 99 employees—do—	329	Resales—do—	(D)
With 100 employees or more—do—	50	Purchased fuels consumed—do—	28.5
All employees:		Purchased electric energy:	
Average for year—1,000—	1,000	Quantity—mil. kWh—	641.3
Payroll for year—mil. dol.—	198.0	Cost—mil. dol.—	25.2
Production, development, and exploration workers:		Electric energy generated less sold—mil. kWh—	(D)
Average for year—1,000—	5.2	Contract work—mil. dol.—	(D)
March—do—	5.1	Cost of purchased communication services—do—	.6
May—do—	5.3	Value of shipments and receipts—do—	604.4
August—do—	5.3	Value of resales—do—	(D)
November—do—	5.2	Capital expenditures during year (except land and mineral rights)—do—	80.2
Hours—millions—		New capital expenditures during year—do—	57.6
January to March—do—	10.3	Buildings and other structures, except land—do—	14.9
April to June—do—	2.5	Machinery and equipment—do—	42.8
July to September—do—	2.6	Used capital expenditures during year—do—	12.5
October to December—do—	2.6	Buildings and other structures, except land—do—	.5
Wages—mil. dol.—	119.8	Machinery and equipment—do—	11.9
Supplemental labor costs not included in payroll—do—	43.6	Mineral exploration and development—do—	10.1
Legally required expenditures, including Social Security contributions—do—	15.8	Rental payments during year—do—	8.1
Payments for voluntary programs—do—	27.9	Buildings and other structures, except land—do—	.6
Value added by mining—do—	418.2	Machinery and equipment—do—	7.6
		Expensed mineral exploration, development, land, and rights ^{1,2} —do—	9.7

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories¹	86.4	101.6
Detail by method of valuation:		
Subject to LIFO costing ²	16.6	20.3
LIFO reserve	2.9	2.7
LIFO value	13.7	17.6
Not subject to LIFO costing	53.8	64.6
Valuation method not reported ³	(D)	(D)
Amount subject to LIFO reported without associated reserve and value ⁴	(D)	(D)

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977				
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)			
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)								
12	Missouri	E1	394	65	7.9	198.0	5.2	10.3	119.8	418.2	266.3	604.4	80.2	8.1	396.2	
12	Bates County	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
121	Bituminous coal and lignite mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
12	Bituminous coal and lignite mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
121	Boone County	E1	6	2	.1	2.7	.1	.2	2.0	11.4	5.0	15.0	1.4	(NA)	(NA)	
12	Bituminous coal and lignite mining	E1	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
121	Bituminous coal and lignite mining	E1	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
12	Butler County	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
14	Clay County	-	4	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
142	Nonmetallic minerals, except fuels	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
10	Crushed and broken stone, including riprap	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
10	Dent County	-	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
103	Metal mining	-	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
103	Lead and zinc ores	-	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
10	Franklin County	-	10	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
10	Metal mining	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
101	Iron ores	-	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
14	Nonmetallic minerals, except fuels	E2	9	1	.1	1.6	.1	.2	1.2	3.8	(D)	5.3	(D)	(NA)	(NA)	
12	Henry County	-	5	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
121	Bituminous coal and lignite mining	-	4	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
121	Bituminous coal and lignite mining	-	4	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	
10	Iron County	-	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.1	61.0
10	Metal mining	-	7	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores	-	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Jackson County	E2	28	3	.2	4.6	.2	.3	3.5	8.7	3.8	11.5	.9	.2	12.3	
142	Nonmetallic minerals, except fuels	E2	14	3	.2	3.6	.1	.2	2.6	6.1	(D)	8.0	(D)	.2	8.0	
142	Crushed and broken stone, including riprap	E2	12	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.5	

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
1	Missouri—Con.													
12	Jasper County	E3	17	3	.3	6.6	.2	.5	4.3	15.4	7.7	21.8	1.3	(NA) (NA)
12	Bituminous coal and lignite mining	E3	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
121	Bituminous coal and lignite mining	E3	3	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
14	Nonmetallic minerals, except fuels	E2	11	1	.1	2.8	.1	.2	1.5	2.9	(D)	5.3	(D)	(NA) (NA)
142	Crushed and broken stone, including riprap	E2	9	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
14	Jefferson County	E3	10	2	.1	1.6	.1	.2	1.3	3.3	2.3	5.3	.3	(NA) (NA)
14	Nonmetallic minerals, except fuels	E2	9	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Randolph County	-	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1 4.6
12	Bituminous coal and lignite mining	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
121	Bituminous coal and lignite mining	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
14	Reynolds County	-	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
10	Metal mining	-	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
103	Lead and zinc ores	-	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	Ste. Genevieve County	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
14	Nonmetallic minerals, except fuels	-	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
142	Crushed and broken stone, including riprap	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
	St. Louis County	E5	37	6	.4	12.0	.2	.5	5.4	17.4	10.0	26.1	1.3 .3	12.1
13	Oil and gas extraction	E9	17	1	.1	2.1	.1	.1	1.0	9.2	4.1	13.1	.2	(NA) (NA)
T	Crude petroleum and natural gas	E9	11	1	.1	1.3	(Z)	.1	.8	8.2	(D)	11.9	(D)	(NA) (NA)
14	Nonmetallic minerals, except fuels	E1	15	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3 10.6
142	Crushed and broken stone, including riprap	-	5	2	.1	2.9	.1	.2	2.5	3.4	(D)	7.1	(D)	(NA) (NA)
Est 144	Sand and gravel	E3	7	1	.1	2.3	.1	.1	1.7	4.4	1.5	5.5	.4	7.0
V	Stoddard County	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
V	Nonmetallic minerals, except fuels	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
V	Clay, ceramic, and refractory minerals	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
Pro A	Washington County	-	13	5	.3	6.2	.2	.4	3.9	7.8	8.0	14.2	1.6	1.3 37.3
14	Nonmetallic minerals, except fuels	-	8	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
147	Chemical and fertilizer mineral mining	-	7	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
H	St. Louis (IC)	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
12	Bituminous coal and lignite mining	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)
W	Bituminous coal and lignite mining	-	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA) (NA)

Sup¹ County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.L² Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Missouri	394	24	-	34	71	265	Missouri—Con.							
0 to 4 employees	188	4	-	13	60	111	Crawford County	3	-	-	-	-	-	3
5 to 9 employees	77	5	-	4	5	63	0 to 19 employees	2	-	-	-	-	-	2
10 to 19 employees	64	2	-	4	4	54	20 to 99 employees	1	-	-	-	-	-	1
20 to 49 employees	31	2	-	1	1	27	Dade County	2	-	-	-	-	-	2
50 to 99 employees	19	3	-	5	1	10	0 to 19 employees	2	-	-	-	-	-	2
100 to 249 employees	8	3	-	5	-	-	Dallas County	1	-	-	-	-	-	1
250 to 499 employees	6	4	-	2	-	-	0 to 19 employees	1	-	-	-	-	-	1
500 to 999 employees	1	1	-	-	-	-	Davies County	2	-	-	-	-	-	2
Adair County	4	-	-	-	3	1	0 to 19 employees	2	-	-	-	-	-	1
0 to 19 employees	4	-	-	-	3	1	Dallas County	1	-	-	-	-	-	1
Atchison County	2	-	-	-	2	-	0 to 19 employees	2	-	-	-	-	-	2
0 to 19 employees	2	-	-	-	2	-	Davies County	2	-	-	-	-	-	2
Audrain County	2	-	-	-	-	2	0 to 19 employees	3	2	-	-	-	-	1
0 to 19 employees	2	-	-	-	-	2	Dent County	1	-	-	-	-	-	1
Barton County	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	-	-
0 to 19 employees	1	-	-	-	-	1	Douglas County	2	-	-	-	-	-	2
Bates County	5	-	-	1	-	4	0 to 19 employees	1	-	-	-	-	-	1
0 to 19 employees	4	-	-	-	-	4	20 to 99 employees	1	-	-	-	-	-	1
100 to 249 employees	1	-	-	1	-	4	Franklin County	10	1	-	-	-	-	9
Benton County	3	-	-	-	-	3	0 to 19 employees	8	-	-	-	-	-	8
0 to 19 employees	2	-	-	-	-	2	20 to 99 employees	1	-	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1	250 employees or more	1	1	-	-	-	-	-
Bollinger County	1	-	-	-	1	-	Gasconade County	5	-	-	-	-	-	5
0 to 19 employees	1	-	-	-	1	-	0 to 19 employees	5	-	-	-	-	-	5
Boone County	6	-	-	2	1	3	Gentry County	1	-	-	-	-	-	1
0 to 19 employees	4	-	-	1	1	2	0 to 19 employees	1	-	-	-	-	-	1
20 to 99 employees	2	-	-	1	-	1	Greene County	5	-	-	-	-	-	4
Buchanan County	2	-	-	-	1	1	0 to 19 employees	3	-	-	-	-	-	2
0 to 19 employees	2	-	-	-	1	1	Grundy County	3	-	-	-	-	-	3
Butler County	3	-	-	-	2	1	0 to 19 employees	3	-	-	-	-	-	3
0 to 19 employees	2	-	-	-	1	1	Harrison County	3	-	-	-	-	-	3
20 to 99 employees	1	-	-	-	1	1	0 to 19 employees	3	-	-	-	-	-	3
Caldwell County	1	-	-	-	-	1	Henry County	5	-	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	5	-	-	-	-	-	1
Callaway County	5	-	-	-	-	5	Hickory County	3	-	-	-	-	-	3
0 to 19 employees	5	-	-	-	-	5	0 to 19 employees	2	-	-	-	-	-	1
Camden County	1	-	-	-	-	1	20 to 99 employees	1	-	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	Howard County	3	-	-	-	-	-	2
Cape Girardeau County	6	-	-	-	1	5	0 to 19 employees	3	-	-	-	-	-	1
0 to 19 employees	4	-	-	-	-	3	Holt County	1	-	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2	20 to 99 employees	1	-	-	-	-	-	1
Carroll County	3	-	-	-	-	3	Howard County	3	-	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2	0 to 19 employees	3	-	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1	Howell County	1	-	-	-	-	-	1
Cass County	7	-	-	-	5	2	20 to 99 employees	1	-	-	-	-	-	1
0 to 19 employees	7	-	-	-	5	2	Iron County	8	7	-	-	-	-	1
Christian County	2	-	-	-	-	2	0 to 19 employees	4	3	-	-	-	-	1
0 to 19 employees	2	-	-	-	-	2	20 to 99 employees	1	1	-	-	-	-	1
Clark County	2	-	-	-	-	2	100 to 249 employees	1	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	250 employees or more	2	2	-	-	-	-	1
Clay County	4	-	-	-	2	2	Jackson County	28	-	-	-	-	-	14
0 to 19 employees	3	-	-	-	2	1	0 to 19 employees	25	-	-	-	-	-	11
20 to 99 employees	1	-	-	-	-	1	20 to 99 employees	3	-	-	-	-	-	3
Clinton County	1	-	-	-	-	1	Jasper County	17	1	-	-	3	2	11
20 to 99 employees	1	-	-	-	-	1	0 to 19 employees	14	1	-	-	2	-	10
Cole County	8	-	-	1	1	6	20 to 99 employees	3	-	-	-	-	-	2
0 to 19 employees	8	-	-	1	1	6	Jefferson County	10	-	-	-	-	-	9
Cooper County	4	-	-	-	-	4	0 to 19 employees	8	-	-	-	-	-	7
0 to 19 employees	3	-	-	-	-	3	20 to 99 employees	2	-	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1	Johnson County	1	-	-	-	-	-	1
Knox County	3	-	-	-	-	3	Knox County	3	-	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3	0 to 19 employees	3	-	-	-	-	-	3

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class		All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)
Missouri—Con.								Missouri—Con.						
Laclede County		2	-	-	-	-	1	Phelps County		4	-	-	-	-
0 to 19 employees		2	-	-	-	-	1	0 to 19 employees		4	-	-	-	-
Lafayette County		1	-	-	-	-	1	Pike County		7	-	-	-	-
0 to 19 employees		1	-	-	-	-	1	0 to 19 employees		7	-	-	-	-
Lawrence County		1	-	-	-	-	1	Platte County		3	-	-	-	2
0 to 19 employees		1	-	-	-	-	1	0 to 19 employees		3	-	-	-	1
Lewis County		1	-	-	-	-	1	Polk County		5	-	-	-	1
0 to 19 employees		1	-	-	-	-	1	0 to 19 employees		5	-	-	-	4
Lincoln County		4	-	-	-	-	4	Pulaski County		2	-	-	-	2
0 to 19 employees		3	-	-	-	-	3	0 to 19 employees		2	-	-	-	2
20 to 99 employees		1	-	-	-	-	1	Putnam County		2	-	-	-	1
Linn County		1	-	-	-	-	1	0 to 19 employees		2	-	-	-	1
0 to 19 employees		1	-	-	-	-	1	Ralls County		1	-	-	-	1
Livingston County		2	-	-	-	-	2	20 to 99 employees		1	-	-	-	1
0 to 19 employees		1	-	-	-	-	1	Randolph County		5	-	-	3	-
20 to 99 employees		1	-	-	-	-	1	0 to 19 employees		3	-	-	2	-
McDonald County		1	-	-	-	-	1	100 to 249 employees		1	-	-	1	-
0 to 19 employees		1	-	-	-	-	1	250 employees or more		1	-	-	1	-
Macon County		2	-	-	1	1	-	Ray County		2	-	-	-	2
0 to 19 employees		1	-	-	-	-	1	0 to 19 employees		2	-	-	-	2
Madison County		6	3	-	-	1	2	Reynolds County		6	4	-	1	-
0 to 19 employees		6	3	-	-	1	2	0 to 19 employees		2	-	-	-	2
Maries County		2	-	-	-	-	2	St. Charles County		8	-	-	-	1
0 to 19 employees		2	-	-	-	-	2	0 to 19 employees		7	-	-	1	6
Marion County		2	-	-	-	-	2	20 to 99 employees		1	-	-	-	1
0 to 19 employees		2	-	-	-	-	2	St. Genevieve County		3	-	-	-	3
Mercer County		2	-	-	-	-	2	0 to 19 employees		2	-	-	-	2
0 to 19 employees		2	-	-	-	-	2	20 to 99 employees		1	-	-	-	1
Miller County		3	-	-	-	-	3	St. Francois County		9	1	-	-	2
0 to 19 employees		3	-	-	-	-	3	0 to 19 employees		9	1	-	-	6
Moniteau County		2	-	-	-	-	2	St. Louis County		37	3	-	2	17
0 to 19 employees		2	-	-	-	-	2	0 to 19 employees		31	1	-	2	15
Monroe County		5	-	-	2	-	3	20 to 99 employees		6	2	-	1	12
0 to 19 employees		5	-	-	2	-	6	Saine County		2	-	-	-	2
Montgomery County		6	-	-	-	-	6	0 to 19 employees		2	-	-	-	2
0 to 19 employees		6	-	-	-	-	6	20 to 99 employees		1	-	-	-	3
Morgan County		2	-	-	-	-	2	Scotland County		1	-	-	-	1
0 to 19 employees		2	-	-	-	-	2	0 to 19 employees		1	-	-	-	1
Newton County		5	-	-	-	1	4	Shannon County		1	-	-	-	1
0 to 19 employees		5	-	-	-	1	4	0 to 19 employees		1	-	-	-	1
Nodaway County		1	-	-	-	-	1	Shelby County		3	-	-	-	3
0 to 19 employees		1	-	-	-	-	1	0 to 19 employees		2	-	-	-	2
Oregon County		1	-	-	-	-	1	20 to 99 employees		1	-	-	-	1
0 to 19 employees		1	-	-	-	-	1	Shelby County		1	-	-	-	1
Osage County		1	-	-	-	-	1	0 to 19 employees		1	-	-	-	3
0 to 19 employees		1	-	-	-	-	1	20 to 99 employees		1	-	-	-	1
Ozark County		1	-	-	-	1	1	Stoddard County		3	-	-	-	3
0 to 19 employees		1	-	-	-	1	1	0 to 19 employees		2	-	-	-	2
Pemiscot County		2	-	-	-	1	1	20 to 99 employees		1	-	-	-	1
0 to 19 employees		2	-	-	-	1	1	Stone County		1	-	-	-	1
Perry County		2	-	-	-	-	2	0 to 19 employees		1	-	-	-	1
0 to 19 employees		2	-	-	-	-	2	Texas County		1	-	-	-	1
Pettis County		2	-	-	-	-	2	0 to 19 employees		1	-	-	-	1
0 to 19 employees		1	-	-	-	-	1	Vernon County		6	-	-	2	4
20 to 99 employees		1	-	-	-	-	1	0 to 19 employees		6	-	-	2	4

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)
Missouri—Con.							Missouri—Con.						
Warren County -----	5	-	-	-	1	4	Worth County -----	1	-	-	-	-	1
0 to 19 employees-----	5	-	-	-	1	4	0 to 19 employees-----	1	-	-	-	-	1
Washington County -----	13	2	-	2	1	8	St. Louis (IC) -----	9	-	-	9	-	-
0 to 19 employees-----	8	1	-	1	1	5	0 to 19 employees-----	6	-	-	6	-	-
20 to 99 employees -----	5	1	-	1	-	3	20 to 99 employees -----	1	-	-	1	-	-
							100 to 249 employees -----	1	-	-	1	-	-
							250 employees or more -----	1	-	-	1	-	-

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Nebraska

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	4
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	6

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	6
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	8
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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 434 establishments classified in mineral industries in Nebraska amounted to \$335 million in 1982, compared to \$113 million in 1977. Value added by mining amounted to \$246 million in 1982, and payroll in mining amounted to \$47 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making comparisons

to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in Nebraska was 2.3 thousand in 1982, an increase of 28 percent over 1977. Oil and gas extraction led all other mineral industries in the State, accounting for 65 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	2434	224	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0
1977 ¹	243	26	1.8	25.4	1.2	2.6	16.4	72.8	57.8	112.5	18.2
1972 ¹	226	20	1.5	13.1	1.1	2.6	9.7	39.8	18.6	53.0	5.4
1967 ¹	254	24	1.6	9.9	1.4	2.8	7.9	43.1	19.8	55.6	7.2
1963	370	21	2.1	11.2	1.7	3.8	8.6	69.3	29.2	87.8	10.7
1958	305	27	2.1	9.2	1.7	3.4	7.2	64.0	31.4	81.2	14.3
Excluding oil and gas extraction industries:											
1982 ¹	99	10	.9	13.0	.6	1.1	9.1	35.0	36.1	65.8	5.3
1977 ¹ ²	119	18	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1972 ¹ ³	128	15	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 ¹ ³	153	15	1.0	6.0	.9	1.8	4.7	13.4	7.0	18.7	1.6
1963 ³	200	11	1.3	6.1	1.1	2.4	4.9	12.9	7.7	18.6	1.9
1958 ³	160	14	1.1	4.6	.9	2.0	3.9	11.2	5.2	14.6	1.8

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

³Includes data for mining operations at manufacturing locations.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982								1977			
		Establishments during year		All employees		Production, development, and exploration workers				Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	
		E1	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
	All mineral industries -----	E3	434	24	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0
13	Oil and gas extraction -----	E3	335	14	1.5	33.5	1.0	2.2	22.3	211.0	97.4	268.7	39.7
1311	Crude petroleum and natural gas-----	E4	165	3	.4	9.5	.2	.5	4.8	151.7	65.7	190.8	26.6
1321	Natural gas liquids -----	-	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services -----	E2	167	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4
1381	Drilling oil and gas wells -----	E2	51	7	.5	12.0	.4	.9	10.3	33.9	19.8	45.9	7.8
1389	Oil and gas field services, n.e.c. -----	E2	83	3	.3	7.5	.3	.7	5.8	21.1	7.9	24.3	.1
14	Nonmetallic minerals, except fuels -----	E1	96	10	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	EE
142	Crushed and broken stone, including riprap -----	E1	14	5	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1422	Crushed and broken limestone -----	-	10	4	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	AA
144	Sand and gravel -----	E3	78	3	.5	7.1	.3	.6	4.9	15.3	9.1	21.3	.8
1442	Construction sand and gravel -----	E3	73	3	.4	6.9	.3	.5	4.8	14.8	8.6	20.4	3.0
145	Clay, ceramic, and refractory minerals -----	-	1	1	AA	(D)	-	-	-	-	-	-	(NA)
1452	Bentonite -----	-	1	1	AA	(D)	-	-	-	-	-	-	(NA)

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures	6	.1	1.2	1.1	(X)
Crushed and broken stone, including riprap	3	(D)	(D)	(D)	(D)
Crushed and broken limestone	2	(D)	(D)	(D)	(D)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

^a [For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- ducing estab- lishments
			Total	Mines only			Mines with preparation plants			Separ- ately operated prepara- tion plants	Undistri- buted ¹		
				Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods		
	ALL MINERAL INDUSTRIES												
Establishments..... number	434	424	160	-	5	155	46	1	40	5	2	216	10
Employees..... 1,000	2.3	2.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	(Z)
Value added in mining..... mil. dol.	246.0	247.3	-	-	-	-	-	-	-	-	-	64.0	-1.2
10 METAL MINING													
Establishments..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
Employees..... 1,000	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-
Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	-
108 Metal mining services													
Establishments..... number	1	1	-	-	-	-	-	-	-	-	-	1	-
Employees..... 1,000	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-
Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	-
12 BITUMINOUS COAL AND LIGNITE MINING													
Establishments..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
Employees..... 1,000	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-
Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	-
121 Bituminous coal and lignite mining													
Establishments..... number	2	2	-	-	-	-	-	-	-	-	-	2	-
Employees..... 1,000	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-
Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	-
13 OIL AND GAS EXTRACTION													
Establishments..... number	335	326	155	-	-	155	-	-	-	-	2	169	9
Employees..... 1,000	1.5	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
Value added in mining..... mil. dol.	211.0	-	-	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131 Crude petroleum and natural gas													
Establishments..... number	165	156	155	-	-	155	-	-	-	-	-	1	9
Employees..... 1,000	4	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
Value added in mining..... mil. dol.	151.7	-	-	-	-	(D)	-	-	-	-	-	-	-
132 Natural gas liquids													
Establishments..... number	3	3	-	-	-	-	-	-	-	-	2	1	-
Employees..... 1,000	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	-
Value added in mining..... mil. dol.	-	-	-	-	-	(D)	-	-	-	-	-	-	-

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establishments	Producing establishments									Nonproducing establishments
			Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed ¹
			Total	Under-ground mines	Open pit mines	Combination methods, well operations, and other methods	Total	Under-ground mines	Open pit mines	Combination and other methods		
13	OIL AND GAS EXTRACTION—Con.											
138	Oil and gas field services											
	Establishments—number—	167	167	—	—	—	—	—	—	—	—	167
	Employees -----1,000—	(D)	(D)	—	—	—	—	—	—	—	—	(D)
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
14	NONMETALLIC MINERALS, EXCEPT FUELS											
	Establishments—number—	96	95	5	—	5	—	46	1	40	5	—
	Employees -----1,000—	(D)	(D)	(D)	—	(D)	—	(D)	(D)	(D)	(D)	(D)
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
142	Crushed and broken stone, including riprap											
	Establishments—number—	14	14	—	—	—	—	14	—	14	—	—
	Employees -----1,000—	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
144	Sand and gravel											
	Establishments—number—	78	78	5	—	5	—	31	—	26	5	—
	Employees -----1,000—	.5	.5	(D)	—	(D)	—	(D)	—	.2	(D)	—
	Value added in mining ----- mil. dol.—	15.3	15.3	—	—	—	—	—	—	7.5	(D)	4.5
145	Clay, ceramic, and refractory minerals											
	Establishments—number—	1	1	—	—	—	—	—	—	—	—	1
	Employees -----1,000—	(D)	(D)	—	—	—	—	—	—	—	—	(D)
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
147	Chemical and fertilizer mineral mining											
	Establishments—number—	1	1	—	—	—	—	1	1	—	—	—
	Employees -----1,000—	(D)	(D)	—	—	—	—	(D)	(D)	—	—	—
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
148	Nonmetallic minerals services											
	Establishments—number—	1	1	—	—	—	—	—	—	—	—	1
	Employees -----1,000—	(D)	(D)	—	—	—	—	—	—	—	—	(D)
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—
149	Miscellaneous nonmetallic minerals											
	Establishments—number—	1	1	—	—	—	—	—	—	—	—	1
	Employees -----1,000—	(D)	(D)	—	—	—	—	—	—	—	—	(D)
	Value added in mining ----- mil. dol.—			—	—	—	—	—	—	—	—	—

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982		
Establishments during year	number	434	Cost of supplies	mil. dol.	133.5
With 0 to 19 employees	do	410	Supplies used, minerals received, and purchased machinery installed	do	83.9
With 20 to 99 employees	do	22	Resales	do	.9
With 100 employees or more	do	2	Purchased fuels consumed	do	8.5
All employees:			Purchased electric energy:		
Average for year	1,000	2.3	Quantity	mil. kWh	144.0
Payroll for year	mil. dol.	46.5	Cost	mil. dol.	6.1
Production, development, and exploration workers:			Electric energy generated less sold	mil. kWh	1.5
Average for year	1,000	1.6	Contract work	mil. dol.	34.2
March	do	1.6	Cost of purchased communication services	do	.3
May	do	1.6	Value of shipments and receipts	do	334.5
August	do	1.6	Value of resales	do	.9
November	do	1.5	Capital expenditures during year (except land and mineral rights)	do	45.0
Hours	millions	3.3	New capital expenditures during year	do	25.2
January to March	do	.8	Buildings and other structures, except land	do	1.4
April to June	do	.8	Machinery and equipment	do	23.9
July to September	do	.9	Used capital expenditures during year	do	3.6
October to December	do	.8	Buildings and other structures, except land	do	(Z)
Wages	mil. dol.	31.4	Machinery and equipment	do	3.6
Supplemental labor costs not included in payroll	do	7.6	Mineral exploration and development ¹	do	16.2
Legally required expenditures, including Social Security contributions	do	4.2	Rental payments during year	do	2.5
Payments for voluntary programs	do	3.4	Buildings and other structures, except land	do	.5
Value added by mining	do	246.0	Machinery and equipment	do	2.0
Expensed mineral exploration, development, land, and rights ^{1,2}	do				13.2

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories¹	16.5	16.3
Detail by method of valuation:		
Subject to LIFO costing ²	.5	.5
LIFO reserve	(Z)	(Z)
LIFO value	.5	.4
Not subject to LIFO costing	6.8	6.2
Valuation method not reported ³	9.2	9.6
Amount subject to LIFO reported without associated reserve and value ⁴	(Z)	(Z)

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)		
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
	Nebraska	E3	434	24	2.3	46.5	1.6	3.3	31.4	246.0	133.5	334.5	45.0	1.8	72.8
	Banner County	-	26	-	(Z)	1.3	(Z)	.1	1.0	10.7	4.4	13.7	1.4	(Z)	7.7
13	Oil and gas extraction	-	26	-	(Z)	1.3	(Z)	.1	1.0	10.7	4.4	13.7	1.4	(Z)	7.7
131	Crude petroleum and natural gas	-	15	-	(Z)	.3	(Z)	(Z)	.2	7.7	(D)	9.5	(D)	(Z)	8.6
14	Cass County	-	9	4	.2	3.2	.2	.3	2.9	14.2	26.2	38.0	2.3	.1	6.1
14	Nonmetallic minerals, except fuels	-	9	4	.2	3.2	.2	.3	2.9	14.2	26.2	38.0	2.3	.1	6.1
142	Crushed and broken stone, including riprap	-	3	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer mineral mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)		
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
	Nebraska—Con. Cheyenne County-----	E2	42	-	.2	4.4	.1	.3	3.0	24.8	15.1	32.1	7.8	.1	7.7
13	Oil and gas extraction -----	E2	42	-	.2	4.4	.1	.3	3.0	24.8	15.1	32.1	7.8	.1	7.7
131	Crude petroleum and natural gas-----	E2	23	-	.1	1.7	(D)	(D)	(D)	18.5	9.0	21.6	5.9	(Z)	5.2
138	Oil and gas field services -----	-	18	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Cuming County -----	-	2	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Douglas County -----	E4	19	4	.3	6.8	.1	.1	1.2	5.0	(D)	7.5	(D)	.3	4.4
14	Nonmetallic minerals, except fuels-----	E3	11	2	.1	2.3	.1	.1	1.2	3.8	(D)	5.8	(D)	(NA)	(NA)
	Dundy County -----	-	11	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	-	10	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	-	3	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Gage County -----	E9	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E9	1	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Hitchcock County-----	-	19	2	.1	2.6	.1	.2	2.2	17.1	8.0	22.2	2.9	.1	3.2
13	Oil and gas extraction -----	-	17	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	-	7	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services -----	-	10	2	.1	2.6	.1	.2	2.2	9.3	4.6	12.5	1.4	(NA)	(NA)
	Kimball County -----	E4	65	6	.4	10.0	.3	.7	8.0	37.4	20.9	51.8	6.5	.2	11.5
13	Oil and gas extraction -----	E4	65	6	.4	10.0	.3	.7	8.0	37.4	20.9	51.8	6.5	.2	11.5
131	Crude petroleum and natural gas-----	E4	29	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	5.2
138	Oil and gas field services -----	E4	35	6	.3	7.9	.3	.6	6.6	20.0	10.5	25.6	4.9	(NA)	(NA)
	Red Willow County -----	E5	59	2	.3	4.9	.2	.5	4.0	73.9	31.2	89.6	15.5	.1	6.9
13	Oil and gas extraction -----	E5	57	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas-----	E5	35	1	.1	2.0	.1	.1	1.6	66.5	28.3	80.8	13.9	(Z)	5.6
138	Oil and gas field services -----	E5	22	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Scotts Bluff County -----	E4	21	1	.1	1.7	(Z)	.1	.5	4.9	(D)	5.6	(D)	(NA)	(NA)
13	Oil and gas extraction -----	E5	19	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
Nebraska -----	434	1	-	2	335	96	Nebraska—Con.							
0 to 4 employees-----	320	-	-	2	267	51	Gage County -----	3	-	-	-	-	1	2
5 to 9 employees-----	49	1	-	-	27	21	0 to 19 employees-----	2	-	-	-	-	1	1
10 to 19 employees-----	41	-	-	-	27	14	20 to 99 employees-----	1	-	-	-	-	1	1
20 to 49 employees-----	19	-	-	-	10	9	Garden County -----	8	-	-	-	-	8	-
50 to 99 employees-----	3	-	-	-	3	-	0 to 19 employees-----	8	-	-	-	-	8	-
100 to 249 employees-----	2	-	-	-	1	1	Garfield County -----	2	-	-	-	-	-	2
Adams County -----	3	1	-	1	1	-	0 to 19 employees-----	2	-	-	-	-	-	2
0 to 19 employees-----	3	1	-	1	1	-	Garfield County -----	2	-	-	-	-	-	2
Banner County -----	26	-	-	-	26	-	0 to 19 employees-----	2	-	-	-	-	-	2
0 to 19 employees-----	26	-	-	-	26	-	Hall County -----	3	-	-	-	-	-	3
Boone County -----	2	-	-	-	1	1	0 to 19 employees-----	3	-	-	-	-	-	3
0 to 19 employees-----	2	-	-	-	1	1	Harrison County -----	2	-	-	-	-	1	1
Boyd County -----	1	-	-	-	-	1	0 to 19 employees-----	2	-	-	-	-	1	1
0 to 19 employees-----	1	-	-	-	-	1	Hayes County -----	2	-	-	-	-	2	-
Brown County -----	1	-	-	-	1	-	0 to 19 employees-----	2	-	-	-	-	2	-
0 to 19 employees-----	1	-	-	-	1	-	Hitchcock County -----	19	-	-	-	-	17	2
Buffalo County -----	5	-	-	-	1	4	0 to 19 employees-----	17	-	-	-	-	15	2
0 to 19 employees-----	5	-	-	-	1	4	20 to 99 employees-----	2	-	-	-	-	2	-
Butler County -----	5	-	-	-	2	3	Holt County -----	2	-	-	-	-	-	2
0 to 19 employees-----	5	-	-	-	2	3	0 to 19 employees-----	2	-	-	-	-	-	2
Cass County -----	9	-	-	-	-	9	Howard County -----	2	-	-	-	-	1	1
0 to 19 employees-----	5	-	-	-	-	5	0 to 19 employees-----	2	-	-	-	-	1	1
20 to 99 employees-----	4	-	-	-	-	4	Jefferson County -----	4	-	-	-	-	1	3
Cedar County -----	2	-	-	-	-	2	0 to 19 employees-----	4	-	-	-	-	1	3
0 to 19 employees-----	2	-	-	-	-	2	Johnson County -----	1	-	-	-	-	1	-
Chase County -----	1	-	-	-	1	-	0 to 19 employees-----	1	-	-	-	-	1	-
0 to 19 employees-----	1	-	-	-	1	-	Kearney County -----	1	-	-	-	-	1	-
Cherry County -----	3	-	-	-	2	1	0 to 19 employees-----	1	-	-	-	-	1	-
0 to 19 employees-----	3	-	-	-	2	1	Keith County -----	4	-	-	-	-	3	1
Cheyenne County -----	42	-	-	-	42	-	0 to 19 employees-----	4	-	-	-	-	3	1
0 to 19 employees-----	42	-	-	-	42	-	Kimball County -----	65	-	-	-	-	65	-
Colfax County -----	1	-	-	-	-	1	0 to 19 employees-----	59	-	-	-	-	59	-
0 to 19 employees-----	1	-	-	-	-	1	20 to 99 employees-----	6	-	-	-	-	6	-
Cuming County -----	2	-	-	-	-	1	Knox County -----	1	-	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	-	1
20 to 99 employees-----	1	-	-	-	-	1	Lancaster County -----	5	-	-	-	-	4	1
Custer County -----	1	-	-	-	-	1	0 to 19 employees-----	5	-	-	-	-	4	1
0 to 19 employees-----	1	-	-	-	-	1	Lincoln County -----	10	-	-	-	-	8	2
Dawes County -----	7	-	-	-	6	1	0 to 19 employees-----	10	-	-	-	-	8	2
0 to 19 employees-----	7	-	-	-	6	1	Merrick County -----	1	-	-	-	-	1	-
Dawson County -----	3	-	-	-	-	3	0 to 19 employees-----	1	-	-	-	-	1	-
0 to 19 employees-----	3	-	-	-	-	3	Morrill County -----	16	-	-	-	-	15	1
Deuell County -----	1	-	-	-	1	-	0 to 19 employees-----	16	-	-	-	-	15	1
0 to 19 employees-----	1	-	-	-	1	-	Nance County -----	1	-	-	-	-	1	-
Dodge County -----	3	-	-	-	1	2	0 to 19 employees-----	1	-	-	-	-	1	-
0 to 19 employees-----	3	-	-	-	1	2	Nemaha County -----	1	-	-	-	-	1	-
Douglas County -----	19	-	-	-	8	11	0 to 19 employees-----	1	-	-	-	-	1	-
0 to 19 employees-----	15	-	-	-	6	9	Nuckolls County -----	2	-	-	-	-	2	-
20 to 99 employees-----	3	-	-	-	1	2	0 to 19 employees-----	2	-	-	-	-	2	-
100 to 249 employees-----	1	-	-	-	1	-	Otoe County -----	2	-	-	-	-	1	1
Dundy County -----	11	-	-	-	10	1	0 to 19 employees-----	1	-	-	-	-	1	1
0 to 19 employees-----	11	-	-	-	10	1	20 to 99 employees-----	1	-	-	-	-	1	1
Franklin County -----	1	-	-	-	-	1	Pawnee County -----	2	-	-	-	-	1	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	2	-	-	-	-	1	1
Frontier County -----	3	-	-	-	3	-	Perkins County -----	4	-	-	-	-	4	-
0 to 19 employees-----	3	-	-	-	3	-	0 to 19 employees-----	4	-	-	-	-	4	-
Furnas County -----	2	-	-	-	-	2	Pierce County -----	2	-	-	-	-	2	-
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	2	-	-	-	-	2	-

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)
Nebraska—Con.							Nebraska—Con.						
Platte County -----	7	-	-	-	2	5	Sheridan County -----	2	-	-	-	-	1
0 to 19 employees-----	6	-	-	-	1	5	0 to 19 employees-----	2	-	-	-	-	1
20 to 99 employees-----	1	-	-	-	1	-	Sherman County -----	1	-	-	-	-	1
Polk County -----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	Sloux County -----	7	-	-	1	6	-
Red Willow County -----	59	-	-	-	57	2	0 to 19 employees-----	7	-	-	1	6	-
0 to 19 employees-----	57	-	-	-	55	2	Stanton County -----	1	-	-	-	-	1
20 to 99 employees-----	2	-	-	-	2	-	0 to 19 employees-----	1	-	-	-	-	1
Richardson County -----	1	-	-	-	1	-	Thayer County -----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	1	-	0 to 19 employees-----	1	-	-	-	-	1
Rock County -----	1	-	-	-	1	-	Thomas County -----	2	-	-	-	1	1
0 to 19 employees-----	1	-	-	-	1	-	0 to 19 employees-----	2	-	-	-	1	1
Saline County -----	1	-	-	-	-	1	Valley County -----	1	-	-	-	-	1
0 to 19 employees-----	1	-	-	-	-	1	0 to 19 employees-----	1	-	-	-	-	1
Sarpy County -----	2	-	-	-	1	1	Washington County -----	1	-	-	-	-	1
0 to 19 employees-----	2	-	-	-	1	1	20 to 99 employees -----	1	-	-	-	-	1
Saunders County -----	3	-	-	-	1	2	Wayne County -----	1	-	-	-	1	-
0 to 19 employees-----	3	-	-	-	1	2	0 to 19 employees-----	1	-	-	-	1	-
Scotts Bluff County -----	21	-	-	-	19	2	Webster County -----	1	-	-	-	-	1
0 to 19 employees-----	20	-	-	-	19	1	0 to 19 employees-----	1	-	-	-	-	1
100 to 249 employees -----	1	-	-	-	-	1	York County -----	1	-	-	-	-	1
							0 to 19 employees-----	1	-	-	-	-	1

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North Dakota

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
---	---

STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	--
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	6

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	6
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	8
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-- Not applicable.

SUMMARY OF FINDINGS

The total value of shipments and receipts for the 1,037 establishments classified in mineral industries in North Dakota amounted to \$2,229 million in 1982, compared to \$350 million in 1977. Value added by mining amounted to \$1,999 million in 1982, and payroll in mining amounted to \$226 million. All dollar figures shown are in current dollars for the years specified and have not been adjusted for changes in price levels. When making

comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in North Dakota was 8.5 thousand in 1982, an increase of 240 percent over 1977. Oil and gas extraction led all other mineral industries in the State, accounting for 82 percent of the State's mineral industries employment.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982 ¹	21 037	2103	8.5	226.1	6.6	14.4	171.8	1 999.1	1 330.7	2 229.0	1 100.7
1977 ¹	230	32	2.5	43.4	2.0	4.3	33.6	324.6	189.0	349.8	163.8
1972 ¹	149	22	1.5	14.7	1.1	2.4	11.2	83.8	38.7	105.4	17.1
1967 ¹	166	24	1.9	12.6	1.6	3.3	10.1	76.9	45.5	102.8	19.6
1963	187	23	1.7	9.8	1.4	2.8	7.6	73.7	37.2	93.1	17.8
1958	167	25	2.0	10.7	1.6	3.5	8.0	40.3	51.2	65.6	25.9
Excluding oil and gas extraction industries:											
1982 ¹	49	14	1.5	46.4	1.1	2.2	33.6	146.4	75.5	180.6	41.3
1977 ³	53	11	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1972 ³	48	9	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1967 ³	64	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1963 ³	95	9	.6	3.1	.6	1.1	2.6	8.8	8.4	10.0	5.3
1958 ³	82	7	.6	2.3	.5	.9	2.1	6.4	3.2	7.9	1.7

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

³Includes data for mining operations at manufacturing locations.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982								1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)				
12	All mineral industries	-	1 037	103	8.5	226.1	6.6	14.4	1 999.1	1 330.7	2 229.0	1 100.7
121	Bituminous coal and lignite mining	-	16	11	1.2	39.7	.8	1.8	28.8	133.5	66.5	160.5
1211	Bituminous coal and lignite	-	16	11	1.2	39.7	.8	1.8	28.8	133.5	66.5	160.5
13	Oil and gas extraction	-	988	89	7.0	179.7	5.5	12.2	138.2	1 852.7	1 255.1	2 048.4
1311	Crude petroleum and natural gas	-	374	12	1.3	40.8	.8	1.8	23.2	1 386.2	979.0	1 469.2
1321	Natural gas liquids	-	8	4	.2	6.7	.2	.5	6.6	133.7	(D)	169.5
138	Oil and gas field services	E1	606	73	5.5	132.1	4.5	9.9	108.3	332.8	(D)	409.7
1381	Drilling oil and gas wells	E1	133	24	1.8	53.4	1.6	3.5	46.1	126.5	81.9	163.9
1382	Oil and gas field exploration services	E1	129	9	.6	12.4	.5	1.1	10.2	34.5	(D)	44.5
1389	Oil and gas field services, n.e.c.	E2	344	40	3.0	66.3	2.3	5.3	52.0	171.7	73.4	207.2
14	Nonmetallic minerals, except fuels	E5	31	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1442	Construction sand and gravel	E8	25	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Not applicable]

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish-ments	Producing establishments										Nonproducing estab-lishments	
			Mines only				Mines with preparation plants				Sepa-rately operated preparation plants	Undistrib-uted ¹		
			Total	Under-ground mines	Open pit mines	Combina-tion methods, well operations, and other methods	Total	Under-ground mines	Open pit mines	Combina-tion and other methods				
10	ALL MINERAL INDUSTRIES													
	Establishments..... number.....	1 037	1 008	347	-	3	344	16	-	15	1	8	637	
	Employees 1,000.....	8.5	8.4	1.3	-	(D)	(D)	1.0	-	(D)	(D)	.2	5.9	
	Value added in mining mil. dol.	1 999.1	1 996.7	1 409.2	-	(D)	(D)	98.0	-	(D)	(D)	133.7	355.7	
108	METAL MINING													
	Establishments..... number.....	2	1	-	-	-	-	-	-	-	-	-	1	
	Employees 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	-	
	Value added in mining mil. dol.													
108	Metal mining services													
	Establishments..... number.....	1	1	-	-	-	-	-	-	-	-	-	1	
	Employees 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	-	
	Value added in mining mil. dol.													
109	Miscellaneous metal ores													
	Establishments..... number.....	1	-	-	-	-	-	-	-	-	-	-	1	
	Employees 1,000.....	-	-	-	-	-	-	-	-	-	-	-	-	
	Value added in mining mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments..... number.....	16	15	2	-	2	-	8	-	8	-	-	5	
	Employees 1,000.....	1.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	
	Value added in mining mil. dol.	133.5												
121	Bituminous coal and lignite mining													
	Establishments..... number.....	16	15	2	-	2	-	8	-	8	-	-	5	
	Employees 1,000.....	1.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	
	Value added in mining mil. dol.	133.5												
13	OIL AND GAS EXTRACTION													
	Establishments..... number.....	988	963	344	-	-	344	1	-	-	1	8	610	
	Employees 1,000.....	7.0	(D)	(D)	-	-	(D)	(D)	-	-	(D)	.2	(D)	
	Value added in mining mil. dol.	1 852.7										133.7		
131	Crude petroleum and natural gas													
	Establishments..... number.....	374	349	344	-	-	344	1	-	-	1	-	4	
	Employees 1,000.....	1.3	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	(D)	
	Value added in mining mil. dol.	1 386.2												
132	Natural gas liquids													
	Establishments..... number.....	8	8	-	-	-	-	-	-	-	-	8	-	
	Employees 1,000.....	.2	.2	-	-	-	-	-	-	-	-	.2	-	
	Value added in mining mil. dol.	133.7	133.7	-	-	-	-	-	-	-	-	133.7	-	
138	Oil and gas field services													
	Establishments..... number.....	606	606	-	-	-	-	-	-	-	-	-	606	
	Employees 1,000.....	5.5	5.5	-	-	-	-	-	-	-	-	-	5.5	
	Value added in mining mil. dol.	332.8	332.8	-	-	-	-	-	-	-	-	-	332.8	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- duc- ing estab- lish- ments	
			Mines only				Mines with preparation plants				Sepa- rately operated prepara- tion plants	Undistri- buted ¹		
			Total	Under- ground mines	Open pit mines	Combi- na- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- na- tion and other methods				
14	NONMETALLIC MINERALS, EXCEPT FUELS													
	Establishments—number—	31	29	1	—	1	—	7	—	7	—	—	21	
	Employees —1,000—	(D)	(D)	(D)	—	(D)	—	(D)	—	(D)	—	—	(D)	
	Value added in mining — mil. dol.—												2	
142	Crushed and broken stone, including riprap													
	Establishments—number—	2	2	—	—	—	—	2	—	2	—	—	—	
	Employees —1,000—	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—	—	
	Value added in mining — mil. dol.—													
144	Sand and gravel													
	Establishments—number—	25	23	—	—	—	—	4	—	4	—	—	19	
	Employees —1,000—	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—	(D)	
	Value added in mining — mil. dol.—												2	
145	Clay, ceramic, and refractory minerals													
	Establishments—number—	1	1	1	—	1	—	—	—	—	—	—	—	
	Employees —1,000—	(D)	(D)	(D)	—	(D)	—	—	—	—	—	—	—	
	Value added in mining — mil. dol.—													
148	Nonmetallic minerals services													
	Establishments—number—	2	2	—	—	—	—	—	—	—	—	—	2	
	Employees —1,000—	(D)	(D)	—	—	—	—	—	—	—	—	—	(D)	
	Value added in mining — mil. dol.—													
149	Miscellaneous nonmetallic minerals													
	Establishments—number—	1	1	—	—	—	—	1	—	1	—	—	—	
	Employees —1,000—	(D)	(D)	—	—	—	—	(D)	—	(D)	—	—	—	
	Value added in mining — mil. dol.—													

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982
Establishments during year	1 037	Cost of supplies	1 330.7
With 0 to 19 employees	934	Supplies used, minerals received, and purchased machinery installed	751.1
With 20 to 99 employees	91	Resales	(D)
With 100 employees or more	12	Purchased fuels consumed	42.3
All employees:		Purchased electric energy:	
Average for year	1,000	Quantity	398.0
Payroll for year	mil. dol.	Cost	19.0
Production, development, and exploration workers:	8.5	Electric energy generated less sold	60.1
Average for year	1,000	Contract work	(D)
March	6.6	Cost of purchased communication services	2.1
May	7.0	Value of shipments and receipts	2 229.0
August	6.7	Value of resales	(D)
November	6.5	Capital expenditures during year (except land and mineral rights)	1 100.7
Hours	14.4	New capital expenditures during year	686.2
January to March	3.8	Buildings and other structures, except land	(D)
April to June	3.6	Machinery and equipment	(D)
July to September	3.5	Used capital expenditures during year	5.0
October to December	3.4	Buildings and other structures, except land	(D)
Wages	171.8	Machinery and equipment	(D)
Supplemental labor costs not included in payroll	45.4	Mineral exploration and development ¹	409.5
Legally required expenditures, including Social Security contributions	22.1	Rental payments during year	26.7
Payments for voluntary programs	23.3	Buildings and other structures, except land	7.0
Value added by mining	1 999.1	Machinery and equipment	19.7
Expensed mineral exploration, development, land, and rights ²		Expensed mineral exploration, development, land, and rights ²	165.0

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories¹	139.6	139.7
Detail by method of valuation:		
Subject to LIFO costing ²		
LIFO reserve	3.6	5.6
LIFO value	.8	.8
Not subject to LIFO costing	2.8	4.7
Valuation method not reported ³	114.1	110.7
Amount subject to LIFO reported without associated reserve and value ⁴	21.9	23.4
	(Z)	(Z)

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)		
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
	North Dakota	-	1 037	103	8.5	226.1	6.6	14.4	171.8	1 999.1	1 330.7	2 229.0	1 100.7	2.5	324.6
	Billings County	-	70	11	.8	24.5	.6	1.3	16.4	582.8	211.9	654.3	140.4	(Z)	23.4
13	Oil and gas extraction	-	70	11	.8	24.5	.6	1.3	16.4	582.8	211.9	654.3	140.4	(Z)	23.4
131	Crude petroleum and natural gas	-	33	1	.2	6.5	.1	.1	1.4	539.1	184.2	600.1	123.2	(Z)	22.3
138	Oil and gas field services	-	37	10	.6	18.0	.5	1.1	15.0	43.7	54.2	17.2	(NA)	(NA)	11.2
	Bottineau County	E1	43	1	.1	3.3	.1	.2	2.1	48.9	9.6	53.4	5.0	(Z)	11.2
13	Oil and gas extraction	E1	43	1	.1	3.3	.1	.2	2.1	48.9	9.6	53.4	5.0	(Z)	11.2
131	Crude petroleum and natural gas	-	25	-	.1	1.5	(Z)	.1	.7	44.0	8.0	48.2	3.8	(Z)	11.2
138	Oil and gas field services	E5	18	1	.1	1.8	.1	.1	1.5	4.9	1.6	5.2	1.2	(NA)	11.2

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977	
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)
		E2	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)					
	North Dakota—Con.												
	Bowman County	—	52	1	.2	3.3	.1	.3	2.6	41.7	(D)	46.0	(D)
13	Oil and gas extraction	—	50	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	—	24	—	(Z)	.9	(Z)	(Z)	.7	32.8	7.6	34.0	6.4
14	Nonmetallic minerals, except fuels	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
149	Miscellaneous nonmetallic minerals	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Burke County	E1	36	3	.2	4.6	.1	.3	4.1	46.4	31.2	56.7	20.9
13	Oil and gas extraction	E1	36	3	.2	4.6	.1	.3	4.1	46.4	31.2	56.7	20.9
131	Crude petroleum and natural gas	E1	13	—	(Z)	.8	(Z)	(Z)	.6	37.2	(D)	43.2	(D)
138	Oil and gas field services	E1	22	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Burleigh County	E1	17	4	.3	9.9	.2	.4	6.2	39.5	(D)	87.7	(D)
12	Bituminous coal and lignite mining	—	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
121	Bituminous coal and lignite mining	—	3	3	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
13	Oil and gas extraction	E2	13	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	E8	7	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
132	Natural gas liquids	—	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Divide County	—	51	3	.2	4.9	.2	.4	4.3	31.6	(D)	27.0	(D)
13	Oil and gas extraction	—	50	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
131	Crude petroleum and natural gas	—	19	—	(Z)	.4	(Z)	(Z)	.2	19.3	(D)	11.8	(D)
138	Oil and gas field services	—	31	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Dunn County	—	61	4	.3	9.1	.3	.6	7.9	170.0	82.0	197.8	54.3
13	Oil and gas extraction	—	61	4	.3	9.1	.3	.6	7.9	170.0	82.0	197.8	54.3
131	Crude petroleum and natural gas	—	23	1	.1	2.1	.1	.1	1.8	142.7	53.8	147.5	48.9
132	Natural gas liquids	—	2	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	—	36	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Golden Valley County	—	37	1	.1	3.1	.1	.2	2.3	25.4	6.6	20.5	13.7
13	Oil and gas extraction	—	36	1	.1	3.1	.1	.2	2.3	25.4	8.8	20.5	13.7
131	Crude petroleum and natural gas	—	16	—	(Z)	.1	(Z)	(Z)	.1	16.9	6.6	12.0	11.5
138	Oil and gas field services	—	20	1	.1	3.0	.1	.2	2.3	8.5	2.2	8.5	2.3
	McKenzie County	—	128	19	1.2	31.5	1.0	2.2	25.6	349.1	167.8	344.9	192.1
13	Oil and gas extraction	—	128	19	1.2	31.5	1.0	2.2	25.8	349.1	187.8	344.9	192.1
131	Crude petroleum and natural gas	—	52	2	.1	4.1	.1	.2	2.4	282.1	146.8	255.7	173.3
132	Natural gas liquids	—	2	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	E1	74	17	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	McLean County	—	10	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
12	Bituminous coal and lignite mining	—	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
121	Bituminous coal and lignite mining	—	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
13	Oil and gas extraction	—	9	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	—	3	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
	Mercer County	—	10	3	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3
12	Bituminous coal and lignite mining	—	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3
121	Bituminous coal and lignite mining	—	2	2	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3
	Mountrail County	E4	35	1	.1	2.9	.1	.2	2.4	16.8	12.2	17.0	11.9
13	Oil and gas extraction	E4	35	1	.1	2.9	.1	.2	2.4	16.8	12.2	17.0	11.9
131	Crude petroleum and natural gas	E5	14	—	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
138	Oil and gas field services	E3	21	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
n	North Dakota—Con.														
\$	Oliver County	-	5	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
a	Bituminous coal and lignite mining	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
ii	Bituminous coal and lignite mining	-	2	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
ii	Renville County	-	32	1	.1	3.5	.1	.2	2.3	23.7	9.7	30.5	3.0	.1	12.9
a	Oil and gas extraction	-	32	1	.1	3.5	.1	.2	2.3	23.7	9.7	30.5	3.0	.1	12.9
13	Crude petroleum and natural gas	-	22	1	.1	2.2	(Z)	.1	1.2	20.4	(D)	26.7	(D)	.1	12.4
131	Sheridan County	-	6	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
12	Bituminous coal and lignite mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
121	Bituminous coal and lignite mining	-	1	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
121	Slope County	-	13	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
12	Bituminous coal and lignite mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
121	Bituminous coal and lignite mining	-	1	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
121	Stark County	E2	107	13	1.0	24.0	.8	1.8	18.6	83.3	46.7	102.7	27.3	.1	22.3
13	Oil and gas extraction	E2	101	13	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E2	21	1	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)	
138	Oil and gas field services	E2	80	12	.9	20.6	.7	1.7	16.4	49.7	21.5	56.1	15.1	(NA)	(NA)
131	Ward County	E3	44	2	.2	4.6	.1	.3	3.4	12.2	5.7	16.4	1.5	(NA)	(NA)
13	Oil and gas extraction	E4	37	-	.1	1.5	(Z)	.1	1.1	8.9	3.1	10.7	1.3	(NA)	(NA)
131	Crude petroleum and natural gas	E4	12	-	(Z)	.3	(Z)	(Z)	.2	5.5	(D)	6.7	(D)	(NA)	(NA)
131	Williams County	E2	205	29	2.2	48.9	1.7	3.8	38.7	390.6	148.6	405.5	133.7	.6	73.1
13	Oil and gas extraction	E2	204	29	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	E3	57	5	.5	12.1	.3	.8	8.3	198.3	66.9	218.8	46.4	.2	37.7
138	Natural gas liquids	-	2	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	E3	145	22	1.6	33.5	1.3	2.6	27.2	84.3	38.6	105.0	17.9	(NA)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	
North Dakota	1 037	2	-	16	988	31	North Dakota—Con.							
0 to 4 employees	710	2	-	2	690	16	100 to 249 employees	11	-	-	4	7	-	
5 to 9 employees	128	-	-	1	123	4	250 to 499 employees	1	-	-	1	-	-	
10 to 19 employees	96	-	-	2	86	8	Adams County	4	-	-	-	4	-	
20 to 49 employees	65	-	-	4	60	1	0 to 19 employees	4	-	-	-	4	-	
50 to 99 employees	26	-	-	2	22	2								

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	
North Dakota—Con.							North Dakota—Con.							
Billings County -----	70	-	-	-	70	-	Mercer County—Con.							
0 to 19 employees-----	59	-	-	-	59	-	20 to 99 employees -----	1	-	-	1	-	-	
20 to 99 employees -----	9	-	-	-	9	-	100 to 249 employees -----	2	-	-	1	1	-	
100 to 249 employees -----	2	-	-	-	2	-					9	3		
Bottineau County -----	43	-	-	-	43	-	Morton County -----	12	-	-	-	-		
0 to 19 employees-----	42	-	-	-	42	-	0 to 19 employees-----	12	-	-	-	9	3	
20 to 99 employees -----	1	-	-	-	1	-	Mountrail County -----	35	-	-	-	35	-	
Bowman County -----	52	-	-	1	50	1	0 to 19 employees-----	34	-	-	-	34	-	
0 to 19 employees-----	51	-	-	1	50	-	20 to 99 employees -----	1	-	-	1	-	-	
20 to 99 employees -----	1	-	-	-	-	1					1	-		
Burke County -----	36	-	-	-	36	-	Nelson County -----	1	-	-	-	-		
0 to 19 employees-----	33	-	-	-	33	-	0 to 19 employees-----	1	-	-	-	1	-	
20 to 99 employees -----	3	-	-	-	3	-	Oliver County -----	5	-	-	2	2	1	
Burleigh County -----	17	1	-	3	13	-	0 to 19 employees-----	4	-	-	1	2	1	
0 to 19 employees-----	13	1	-	-	12	-	100 to 249 employees -----	1	-	-	1	-	-	
20 to 99 employees -----	3	-	-	2	1	-					1	-		
100 to 249 employees -----	1	-	-	1	-						1	-		
Cass County -----	3	-	-	-	2	1	Pierce County -----	1	-	-	-	1	-	
0 to 19 employees-----	3	-	-	-	2	1	0 to 19 employees-----	1	-	-	-	1	-	
Dickey County -----	1	-	-	-	1	-	Ramaey County -----	1	-	-	-	1	-	
0 to 19 employees-----	1	-	-	-	1	-	0 to 19 employees-----	1	-	-	-	1	-	
Divide County -----	51	-	-	1	50	-	Renaissance County -----	32	-	-	-	32	-	
0 to 19 employees-----	48	-	-	-	48	-	0 to 19 employees-----	31	-	-	-	31	-	
20 to 99 employees -----	3	-	-	1	2	-	20 to 99 employees -----	1	-	-	-	1	-	
Dunn County -----	61	-	-	-	61	-	Richland County -----	3	-	-	-	3	-	
0 to 19 employees-----	57	-	-	-	57	-	0 to 19 employees-----	2	-	-	-	2	-	
20 to 99 employees -----	4	-	-	-	4	-	20 to 99 employees -----	1	-	-	-	1	-	
Eddy County -----	2	-	-	-	2	-	Rolette County -----	6	-	-	-	6	-	
0 to 19 employees-----	2	-	-	-	2	-	0 to 19 employees-----	6	-	-	-	6	-	
Emmons County -----	1	-	-	-	1	-	Sheridan County -----	6	-	-	1	5	-	
0 to 19 employees-----	1	-	-	-	1	-	0 to 19 employees-----	5	-	-	-	5	-	
Golden Valley County -----	37	1	-	-	36	-	Sioux County -----	2	-	-	-	2	-	
0 to 19 employees-----	36	1	-	-	35	-	0 to 19 employees-----	2	-	-	-	2	-	
20 to 99 employees -----	1	-	-	-	1	-	Slope County -----	13	-	-	1	12	-	
Grand Forks County -----	3	-	-	-	-	3	0 to 19 employees-----	12	-	-	-	12	-	
0 to 19 employees-----	2	-	-	-	-	20 to 99 employees -----	1	-	-	1	-	-		
20 to 99 employees -----	1	-	-	-	-						1	-		
Grant County -----	3	-	-	-	-	3	0 to 19 employees-----	94	-	-	1	88	5	
0 to 19 employees-----	3	-	-	-	-	20 to 99 employees -----	12	-	-	1	12	-		
Griggs County -----	2	-	-	-	-	3	100 to 249 employees -----	1	-	-	-	1	-	
0 to 19 employees-----	2	-	-	-	-						2	-		
Hettinger County -----	4	-	-	-	-	4	Steele County -----	2	-	-	-	2	-	
0 to 19 employees-----	4	-	-	-	-	4	0 to 19 employees-----	2	-	-	-	2	-	
Kidder County -----	2	-	-	-	-	2	Stutman County -----	3	-	-	-	1	2	
0 to 19 employees-----	2	-	-	-	-	2	0 to 19 employees-----	3	-	-	-	1	2	
McHenry County -----	6	-	-	-	-	5	Towner County -----	2	-	-	-	1	1	
0 to 19 employees-----	6	-	-	-	-	5	0 to 19 employees-----	2	-	-	-	1	1	
McKenzie County -----	128	-	-	-	128	-	Traill County -----	3	-	-	-	-	3	
0 to 19 employees-----	109	-	-	-	109	-	0 to 19 employees-----	3	-	-	-	-	3	
20 to 99 employees -----	17	-	-	-	17	-	Walsh County -----	3	-	-	-	2	1	
100 to 249 employees -----	2	-	-	-	2	-	0 to 19 employees-----	3	-	-	-	2	1	
McLean County -----	10	-	-	1	9	-	Ward County -----	44	-	-	2	37	5	
0 to 19 employees-----	8	-	-	-	8	-	0 to 19 employees-----	42	-	-	1	37	4	
20 to 99 employees -----	1	-	-	-	1	-	20 to 99 employees -----	2	-	-	1	-	1	
250 employees or more -----	1	-	-	1	-	-					1	28	-	
Mercer County -----	10	-	-	2	8	-	Wells County -----	4	-	-	-	1	204	-
0 to 19 employees-----	7	-	-	-	7	-	0 to 19 employees-----	176	-	-	1	175	-	
							20 to 99 employees -----	28	-	-	-	28	-	
							100 to 249 employees -----	1	-	-	-	1	-	

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South Dakota

CONTENTS

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Summary of Findings	2

TABLES

HISTORICAL STATISTICS

1. Historical Statistics for the State: 1982 and Earlier Census Years	3
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STATE STATISTICS

2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977	3
2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982	3
3. Selected Statistics by Type of Operation and Industry Group for the State: 1982	4
4a. Summary Statistics for the State: 1982	6
4b. Inventories for the State: End of 1981 and 1982	6

COUNTY STATISTICS

5. Industry Group Statistics for Counties: 1982 and 1977	6
--	---

EMPLOYMENT SIZE CLASS STATISTICS

6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982	7
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SUMMARY OF FINDINGS

The total value of shipments and receipts for the 143 establishments classified in mineral industries in South Dakota amounted to \$173 million in 1982, compared to \$100 million in 1977. Value added by mining amounted to \$116 million in 1982, and payroll in mining amounted to \$50 million. All dollar figures shown are in current dollars for the years specified and have not

been adjusted for changes in price levels. When making comparisons to prior years, users should take into consideration the inflation that has occurred.

Mineral industries employment in South Dakota was 2.3 thousand in 1982, a decrease of 4 percent from 1977. Metal mining led all other mineral industries in the State.

Table 1. Historical Statistics for the State: 1982 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Kind of operation and year	Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
Mineral industries:											
1982	143	29	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7	28.2
1977	68	9	2.4	34.6	2.1	3.9	27.0	68.0	55.7	99.6	24.1
1972	68	9	1.8	18.5	1.5	3.4	14.6	32.4	18.5	46.2	4.8
1967	81	7	2.2	13.9	1.9	4.4	11.3	23.6	10.9	32.8	1.6
1963	131	14	2.6	13.7	2.2	4.9	11.7	25.6	15.3	37.9	3.0
1958	133	13	2.6	12.6	2.2	4.6	10.7	25.1	12.3	34.9	2.5
Excluding oil and gas extraction industries:											
1982	46	5	1.9	42.3	1.5	2.6	30.1	69.2	61.2	114.3	16.1
1977	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1972	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1967	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1963	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
1958	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Note: For data prior to 1958, see 1963 Census of Mineral Industries, volume II.

¹Beginning with 1967, data for single-unit establishments without paid employees were excluded from the census.

²Not comparable to prior years. See Introduction for further explanation.

Table 2a. Mineral Establishment Statistics by Industry for the State: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and industry	1982								1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
		E ¹	Total (number)	With 20 employees or more (number)	Number ² (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)				
	All mineral Industries ----	-	143	9	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7
10	Metal mining-----	-	10	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores -----	-	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	EE
1041	Gold ores -----	-	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction -----	-	97	4	.3	7.4	.2	.6	5.3	46.7	23.8	58.4
138	Oil and gas field services -----	-	59	2	.3	5.6	.2	.4	4.2	14.6	4.7	16.1
1389	Oil and gas field services, n.e.c. -----	-	32	2	.2	3.4	.1	.3	2.6	9.1	2.0	9.6
14	Nonmetallic minerals, except fuels -----	E1	35	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1411	Dimension stone -----	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
145	Clay, ceramic, and refractory minerals -----	-	5	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	BB
1452	Bentonite -----	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)

¹Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²General statistics for some industries and industry groups are withheld to avoid disclosing data for individual companies. However, for such industries and industry groups with 100 employees or more, number of establishments is shown and employment size range is indicated by one of the following symbols: AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 2b. Mining Activities of Manufacturing Establishments With Associated Mines by Industry for the State: 1982

[Represents data reported for mining activities by establishments classified in manufacturing industries. Figures may be understated due to use of administrative records and short forms. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Industry group and industry	Establishments during year (number)	Production, development, and exploration workers		Cost of supplies used, etc. (million dollars)	Quantity of production (1,000 s. tons)
		Hours (millions)	Wages (million dollars)		
Nonmetallic mineral mines included in manufactures -----	3	(D)	(D)	(D)	(X)

Note: Industries and industry groups with less than 50 thousand hours for employees engaged in production, development, and exploration work are not shown.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments										Nonpro- duc- ing estab- lish- ments	
			Mines only				Mines with preparation plants				Sep- arately operated prepara- tion plants	Undistri- buted ¹		
			Total	Under- ground mines	Open pit mines	Combina- tion methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combina- tion and other methods				
	ALL MINERAL INDUSTRIES													
	Establishments..... number.....	143	134	36	1	5	30	24	1	23	-	-	74	
	Employees..... 1,000.....	2.3	2.3	.2	(D)	(D)	(D)	1.7	(D)	(D)	-	-	.3	
	Value added in mining..... mil. dol.	115.9	116.0	37.9	-	-	-	61.4	-	-	-	-	16.7	
10	METAL MINING													
	Establishments..... number.....	10	9	2	1	1	-	1	1	-	-	-	6	
	Employees..... 1,000.....	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	1	
101	Iron ores													
	Establishments..... number.....	1	1	1	(D)	(D)	-	-	-	-	-	-	-	
	Employees..... 1,000.....	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
104	Gold and silver ores													
	Establishments..... number.....	4	3	-	-	-	-	1	1	-	-	-	2	
	Employees..... 1,000.....	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	1	
108	Metal mining services													
	Establishments..... number.....	2	2	-	-	-	-	-	-	-	-	-	2	
	Employees..... 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
109	Miscellaneous metal ores													
	Establishments..... number.....	3	3	1	1	-	-	-	-	-	-	-	2	
	Employees..... 1,000.....	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
12	BITUMINOUS COAL AND LIGNITE MINING													
	Establishments..... number.....	1	1	-	-	-	-	-	-	-	-	-	1	
	Employees..... 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
121	Bituminous coal and lignite mining													
	Establishments..... number.....	1	1	-	-	-	-	-	-	-	-	-	1	
	Employees..... 1,000.....	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	-	-	-	-	-	-	-	-	-	-	-	-	
13	OIL AND GAS EXTRACTION													
	Establishments..... number.....	97	89	30	-	-	30	-	-	-	-	-	59	
	Employees..... 1,000.....	.3	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	46.7	-	-	-	-	(D)	-	-	-	-	-	14.6	
131	Crude petroleum and natural gas													
	Establishments..... number.....	38	30	30	-	-	30	-	-	-	-	-	8	
	Employees..... 1,000.....	.1	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	
	Value added in mining..... mil. dol.	32.1	-	-	-	-	(D)	-	-	-	-	-	-	

See footnotes at end of table.

Table 3. Selected Statistics by Type of Operation and Industry Group for the State: 1982—
Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Industry group and item	All types of establish- ments	Producing establishments									Nonpro- ducing estab- lish- ments
			Mines only				Mines with preparation plants				Sep- arately operated prepara- tion plants	Undistri- buted ¹
			Total	Under- ground mines	Open pit mines	Combi- nation methods, well operations, and other methods	Total	Under- ground mines	Open pit mines	Combi- nation and other methods		
13	OIL AND GAS EXTRACTION—Con.											
138	Oil and gas field services											
	Establishments—number—	59	59	—	—	—	—	—	—	—	—	59
	Employees—1,000—	.3	.3	—	—	—	—	—	—	—	—	.3
	Value added in mining—mil. dol.—	14.6	14.6	—	—	—	—	—	—	—	—	14.6
14	NONMETALLIC MINERALS, EXCEPT FUELS											
	Establishments—number—	35	35	4	—	4	—	23	—	23	—	8
	Employees—1,000—	(D)	(D)	(D)	—	(D)	—	(D)	—	(D)	—	(D)
	Value added in mining—mil. dol.—											
141	Dimension stone											
	Establishments—number—	3	3	3	—	3	—	—	—	—	—	—
	Employees—1,000—	(D)	(D)	(D)	—	(D)	—	(D)	—	(D)	—	(D)
	Value added in mining—mil. dol.—											
142	Crushed and broken stone, including riprap											
	Establishments—number—	6	6	—	—	—	—	6	—	6	—	—
	Employees—1,000—	.1	.1	—	—	—	—	.1	—	.1	—	—
	Value added in mining—mil. dol.—	3.6	3.6	—	—	—	—	3.6	—	3.6	—	—
144	Sand and gravel											
	Establishments—number—	18	18	—	—	—	—	12	—	12	—	6
	Employees—1,000—	.1	.1	—	—	—	—	(D)	—	(D)	—	(D)
	Value added in mining—mil. dol.—	1.6	1.6	—	—	—	—	(D)	—	(D)	—	(D)
145	Clay, ceramic, and refractory minerals											
	Establishments—number—	5	5	1	—	1	—	3	—	3	—	1
	Employees—1,000—	(D)	(D)	(Z)	—	(Z)	—	(D)	—	(D)	—	(Z)
	Value added in mining—mil. dol.—											
148	Nonmetallic minerals services											
	Establishments—number—	1	1	—	—	—	—	—	—	—	—	1
	Employees—1,000—	(D)	(D)	—	—	—	—	—	—	—	—	(D)
	Value added in mining—mil. dol.—											
149	Miscellaneous nonmetallic minerals											
	Establishments—number—	2	2	—	—	—	—	2	—	2	—	—
	Employees—1,000—	(D)	(D)	—	—	—	—	(D)	—	(D)	—	(D)
	Value added in mining—mil. dol.—											

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4a. Summary Statistics for the State: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1982	Item	1982		
Establishments during year	number	143	Cost of supplies	mil. dol.	85.0
With 0 to 19 employees	do	134	Supplies used, minerals received, and purchased machinery installed	do	50.7
With 20 to 99 employees	do	7	Resales	do	6
With 100 employees or more	do	2	Purchased fuels consumed	do	5.1
All employees:			Purchased electric energy:		
Average for year	1,000	2.3	Quantity	mil. kWh.	255.7
Payroll for year	mill. dol.	49.7	Cost	mil. dol.	10.6
Production, development, and exploration workers:			Electric energy generated less sold	mil. kWh.	(D)
Average for year	1,000	1.7	Contract work	mil. dol.	18.0
March	do	2.1	Cost of purchased communication services	do .....	.1
May	do	2.1	Value of shipments and receipts	do	172.7
August	do .....	.8	Value of resales	do .....	.6
November	do	2.0	Capital expenditures during year (except land and mineral rights)	do	28.2
Hours	millions	3.1	New capital expenditures during year	do	23.6
January to March	do	1.0	Buildings and other structures, except land	do	9.0
April to June	do .....	.8	Machinery and equipment	do	14.6
July to September	do .....	.4	Used capital expenditures during year	do .....	.5
October to December	do .....	.9	Buildings and other structures, except land	do .....	.1
Wages	mill. dol.	35.4	Machinery and equipment	do .....	.4
Supplemental labor costs not included in payroll	do	18.8	Mineral exploration and development ¹	do	4.1
Legally required expenditures, including Social Security contributions	do	4.5	Rental payments during year	do .....	.8
Payments for voluntary programs	do	12.3	Buildings and other structures, except land	do .....	.1
Value added by mining	do	115.9	Machinery and equipment	do .....	.7
			Expensed mineral exploration, development, land, and rights ^{1,2}	do	8.1

¹Excludes data for mining service industries and natural gas liquids industry where data were not collected.

²Excludes data for mineral land and rights for the crude petroleum and natural gas industry where data were not collected.

Table 4b. Inventories for the State: End of 1981 and 1982

[Million dollars. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	End of 1981	End of 1982
Total Inventories¹	41.4	46.4
Detail by method of valuation:		
Subject to LIFO costing ²		
LIFO reserve	18.5	24.5
LIFO value	11.3	17.2
Not subject to LIFO costing	7.1	7.3
Valuation method not reported ³	19.3	17.8
Amount subject to LIFO reported without associated reserve and value ⁴	3.7	4.1
	—	—

¹Beginning in the 1982 economic censuses, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

²Only includes data reported by respondents who (a) indicated amount of inventories subject to LIFO cost, and (b) provided sufficient information to determine associated LIFO reserve and value figures.

³Includes data estimated for nonresponse and nonmail administrative records and data reported by respondents who provided total inventory figures without other information.

⁴Includes data reported by respondents who indicated their inventories were subject to LIFO cost but did not provide associated LIFO reserve and value figures.

Table 5. Industry Group Statistics for Counties: 1982 and 1977

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977			
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)	
		E ²	Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)							
14	South Dakota	-	143	9	2.3	49.7	1.7	3.1	35.4	115.9	85.0	172.7	28.2	2.4	68.0
	Butte County	-	6	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Nonmetallic minerals, except fuels	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay, ceramic, and refractory minerals	-	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Grant County	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Dimension stone	E9	3	1	AA	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

Table 5. Industry Group Statistics for Counties: 1982 and 1977—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

SIC code	Geographic area and industry group ¹	1982										1977		
		Establishments during year		All employees		Production, development, and exploration workers			Value added by mining (million dollars)	Cost of supplies used, purchased machinery installed, etc. (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	All employees (1,000)	Value added by mining (million dollars)
		Total (number)	With 20 employees or more (number)	Number ³ (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)						
E ²														
	South Dakota—Con.													
	Harding County	-	35	2	.1	3.5	.1	.2	2.5	33.9	20.2	44.6	9.4	(Z)
13	Oil and gas extraction	-	35	2	.1	3.5	.1	.2	2.5	33.9	20.2	44.6	9.4	(NA)
131	Crude petroleum and natural gas	-	12	2	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	-	23	-	ZZ	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Lawrence County	-	8	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
10	Metal mining	-	5	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
104	Gold and silver ores	-	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)

¹County data shown in this table are limited to counties or industry groups with a value of shipments and receipts greater than \$5 million.

²Payroll and sales data for some small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate items shown for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

³Some statistics for counties or industry groups with a value of shipments and receipts greater than \$5 million are withheld to avoid disclosing data for individual companies. However, for such counties and industry groups, number of establishments is shown and employment size range is indicated by one of the following symbols: ZZ—less than 100 employees; AA—100 to 249 employees; BB—250 to 499 employees; CC—500 to 999 employees; EE—1,000 to 2,499 employees; FF—2,500 employees or more.

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthracite mining (SIC 11)	Bituminous coal and lignite mining (SIC 12)	Oil and gas extraction (SIC 13)	Non-metallic minerals mining (SIC 14)	
South Dakota	143	10	-	1	97	35	South Dakota—Con.							
0 to 4 employees	105	4	-	-	86	15	Dewey County	1	-	-	-	-	1	-
5 to 9 employees	19	5	-	1	5	8	0 to 19 employees	1	-	-	-	-	1	-
10 to 19 employees	10	-	-	-	2	8	Edmunds County	1	-	-	-	-	1	-
20 to 49 employees	4	-	-	-	3	1	0 to 19 employees	1	-	-	-	-	1	-
50 to 99 employees	3	-	-	-	1	2	Fall River County	11	1	-	-	-	8	2
100 to 249 employees	1	-	-	-	-	1	0 to 19 employees	11	1	-	-	-	8	2
1,000 to 2,499 employees	1	1	-	-	-	-	Faulk County	1	-	-	-	-	1	-
Aurora County	13	-	-	1	12	-	0 to 19 employees	1	-	-	-	-	1	-
0 to 19 employees	13	-	-	1	12	-	Faulk County	1	-	-	-	-	1	-
Brookings County	2	-	-	-	-	2	0 to 19 employees	1	-	-	-	-	1	-
0 to 19 employees	2	-	-	-	-	2	Grant County	3	-	-	-	-	3	-
Brule County	1	-	-	-	-	1	0 to 19 employees	2	-	-	-	-	2	-
0 to 19 employees	1	-	-	-	-	1	20 to 99 employees	1	-	-	-	-	1	-
Buffalo County	1	-	-	-	-	1	Gregory County	2	-	-	-	-	1	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	2	-	-	-	-	1	1
Butte County	6	-	-	-	3	3	Haakon County	1	-	-	-	-	1	-
0 to 19 employees	4	-	-	-	3	1	0 to 19 employees	1	-	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1	20 to 99 employees	1	-	-	-	-	1	-
100 to 249 employees	1	-	-	-	-	1	Gregory County	2	-	-	-	-	1	1
Charles Mix County	1	-	-	-	-	1	Hand County	3	-	-	-	-	2	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	3	-	-	-	-	2	1
Clark County	2	-	-	-	-	1	Hanson County	2	-	-	-	-	1	1
0 to 19 employees	2	-	-	-	-	1	0 to 19 employees	2	-	-	-	-	1	1
Codington County	3	-	-	-	-	3	Harding County	35	-	-	-	-	35	-
0 to 19 employees	3	-	-	-	-	3	0 to 19 employees	33	-	-	-	-	33	-
Custer County	4	2	-	-	-	1	20 to 99 employees	2	-	-	-	-	2	-
0 to 19 employees	4	2	-	-	-	1	Hughes County	1	-	-	-	-	1	-
Davison County	2	-	-	-	-	1	Hyde County	1	-	-	-	-	1	-
0 to 19 employees	2	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1	-

Table 6. Number of Mineral Establishments in Major Groups by Employment Size Class for Counties: 1982—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)	Geographic area and employment size class	All mineral industries	Metal mining (SIC 10)	Anthra-cite mining (SIC 11)	Bitumi-nous coal and lignite mining (SIC 12)	Oil and gas ex-traction (SIC 13)	Non-metallic minerals mining (SIC 14)
South Dakota—Con.							South Dakota—Con.						
Lake County	1	-	-	-	-	1	Perkins County	5	-	-	-	4	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	4	-	-	-	3	1
250 employees or more	1	1	-	-	-	-	20 to 99 employees	1	-	-	-	1	-
Lawrence County	8	5	-	-	2	1	Potter County	1	-	-	-	1	-
0 to 19 employees	7	4	-	-	2	1	0 to 19 employees	1	-	-	-	1	-
250 employees or more	1	1	-	-	-	-	Roberts County	1	-	-	-	1	-
Lyman County	1	-	-	-	1	-	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-	Stanley County	1	-	-	-	1	-
McPherson County	1	-	-	-	1	-	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-	Sully County	2	-	-	-	1	1
Meade County	2	-	-	-	2	-	0 to 19 employees	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	2	-	Todd County	1	-	-	-	1	-
Mellette County	2	-	-	-	2	-	20 to 99 employees	1	-	-	-	1	-
0 to 19 employees	2	-	-	-	2	-	Tripp County	1	-	-	-	1	-
Minnehaha County	4	1	-	-	-	3	0 to 19 employees	1	-	-	-	1	-
0 to 19 employees	3	1	-	-	-	2	Union County	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1
Moody County	1	-	-	-	-	1	Walworth County	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1	0 to 19 employees	1	-	-	-	-	1
Pennington County	11	1	-	-	5	5	Yankton County	1	-	-	-	-	1
0 to 19 employees	11	1	-	-	5	5	0 to 19 employees	1	-	-	-	-	1

APPENDIX A.

Explanation of Terms

Employment and related items—The report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year and for other employees as of the payroll period which included the 12th of March.

All employees—This item includes all full-time and part-time employees on the payrolls of mining establishments for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working supervisor level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), record keeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Supervisory employees above the working supervisor level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal,

personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Separately operated auxiliary establishments employees—This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments were classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

All employees, average for year—The 1982 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

Payroll—This term includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation; it excludes payments to the proprietor or partners, if an unincorporated concern, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages. As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States. Respondents were told that in reporting they could follow the definition of payroll used for calculating the Federal withholding tax.

Production, development, and exploration worker hours—This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repairpersons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight-time equivalent hours. Hours of working proprietors or partners are excluded.

Supplemental Labor Costs—This item represents employer's cost for fringe benefits not included in payrolls.

Legally required expenditures, including social security contributions—This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

Payments for voluntary programs—Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

Value added by mining—This measure of mining activity is derived by subtracting the cost of supplies used, minerals received for preparation, purchased machinery installed, purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

Cost of supplies used, purchased machinery installed, etc.—Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1982 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year.

Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to opening inventory and subtracting closing inventory. Separate figures were requested for: (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments; or such overhead costs as depreciation charges, rent, interest, and royalties.

Value of shipments and receipts—The amounts shown as value of shipments and receipts for each industry are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges. "Shipments" include all products physically shipped from the establishment during 1982, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1982. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value, i.e., to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes: (1) the value of all "primary" products of the industry, (2) the value of "secondary" products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products.

Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

Capital expenditures—This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1982 were to be determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures were to include work done on contract, as well as by the mine forces.

Expenditures for machinery and equipment were to include those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

Rental payments—This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

Current account expenditures—This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

Inventories—This item includes inventories of mined or quarried products, and supplies, parts, fuels, etc., at the beginning and end of the year. Beginning in the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method. The inventory figures for 1982, therefore, will not be comparable to prior census data because of the change in reporting instructions.

APPENDIX B.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont
North and Mid-Atlantic Offshore

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia
South Atlantic Offshore

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas
Northern Gulf of Mexico Offshore

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington
Pacific Offshore

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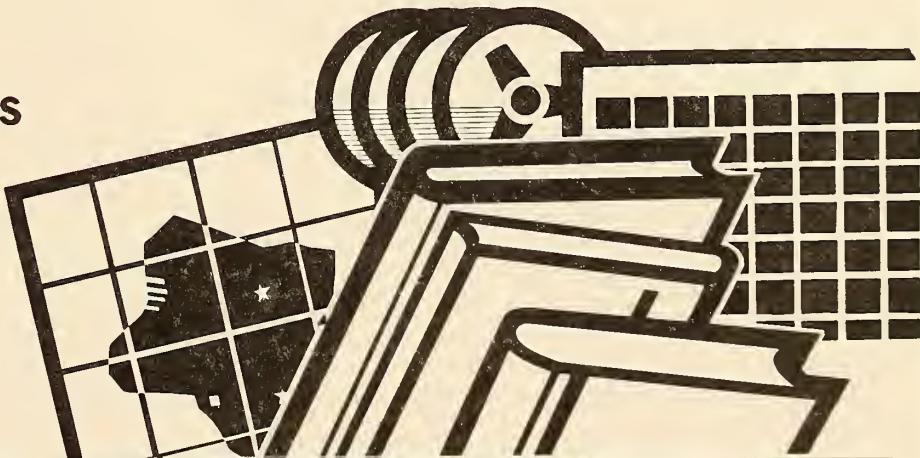
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PUBLICATION PROGRAM

1982 CENSUS OF MINERAL INDUSTRIES

Publications of the 1982 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

Preliminary Reports

Preliminary data from the 1982 census have been issued in 12 industry and 2 summary reports covering all of the 42 mineral industries. These reports are superseded by more detailed final reports.

Final Reports

Final detailed statistics are issued in separate paperbound reports.

Industry series—12 reports (MIC82-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 42 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased, quantity of fuel stocks, and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization and depletion; payrolls; hours worked; cost of purchased machinery; value added by mining; mineral development and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

Geographic area series—9 reports (MIC82-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States for two- and three-digit industry groups by type of operation and by county. Also, data are shown for value of shipments, value added by mining, employment, payroll, hours worked, capital expenditures, cost of supplies, etc., purchased machinery

installed, and number of mining establishments, with comparative 1977 data on employment and value added by mining.

Subject series—7 reports (MIC82-S-1 to -7)

Each of the 7 reports contains detailed statistics for an individual subject, such as water use in mineral industries; gross value of depreciable assets, capital expenditures, retirements, depreciation and rental payments; size of establishments; type of operation; fuels and electric energy consumed; type of organization; and a general National-level summary.

Final Report Volume

Final paperbound reports are subsequently assembled and reissued in one clothbound volume.

Microfiche

All published data are also available on microfiche.

Availability of Public Use Computer Tapes

Public-use computer tapes for the census of mineral industries are not included as part of the economic census publication program. Special tabulations can be made available on computer tape on a contract, cost-reimbursable basis. Contact Industry Division, Bureau of the Census, Washington, D.C. 20233 for more information.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

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